

IES Indoor Report

Photometric Filename: HB200HE4I-PY-D30x90.IES

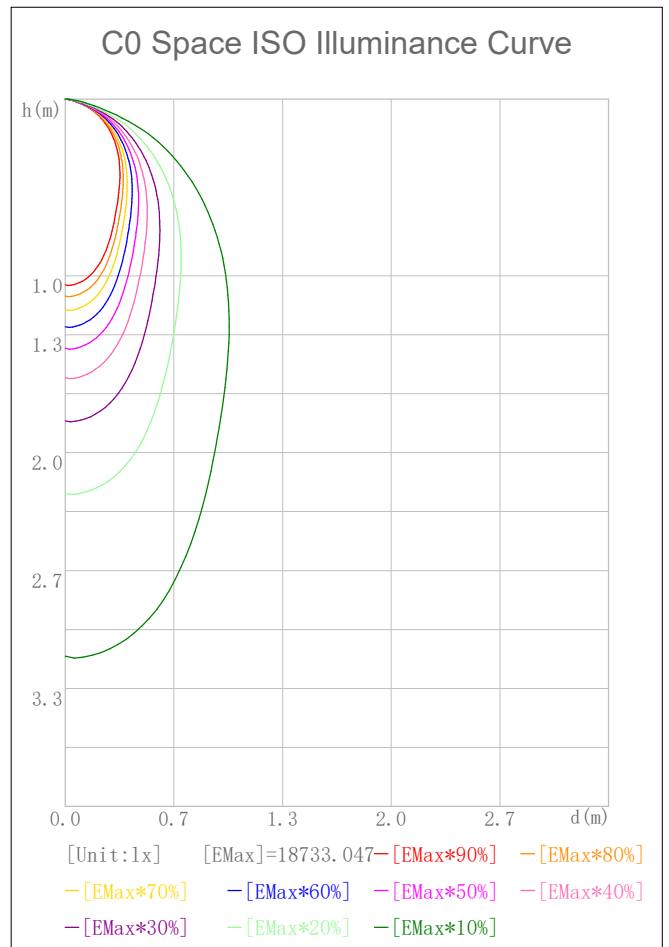
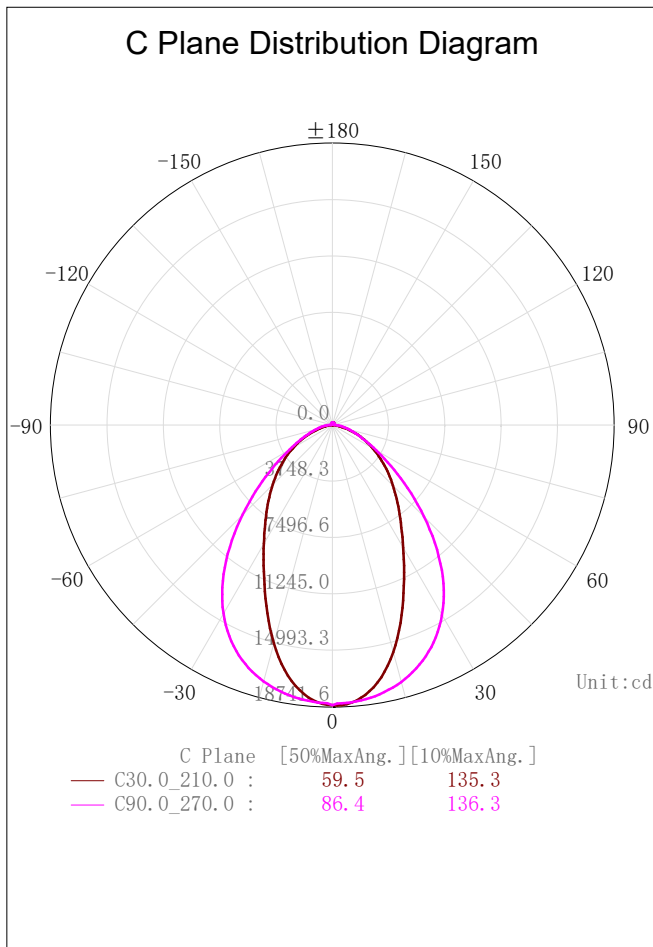
Indoor Luminaire Photometric Data

Description Information

Luminaire Name: HB200HE4I-PY-D30x90		Lum. Catalog: Linear High Bay	Test ID:
Lamp Name:		Lamp Catalog: 2835	Test Date: 2023/09/22
Manufacture:		Shld. Ang(°):	Test Machine: GON-2000
Test Lab:		Frequency(Hz):	Lamp CCT(K): Ra:
Lum. Size(W*L*H): 1.192m*0.105m*0.079m		Lum. Area(m ²): 0.133	Lum. W(kg): 0.000
Test System: C, γ	Test Step: C=45.0 γ=1.0	Temp. (°C): 25	Humidity(%): 50.0

Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 31135.000	Luminaire Flux(lm): 29890.143	Field Angle(10%Imax): 131.9(°)	
Rated Power(W):	Luminaire Efficiency: 96.00%	Down Lumens&Percent: 29446.184lm 98.51%	
Rated Voltage(V):	Luminaire EER(lm/W): 150.884	Up Lumens&Percent: 443.960lm 1.49%	
Tested Power(W): 198.100	Max. Candela(cd): 18741.609	S/MH: C0_a180=0.764 C90_270=1.167	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=1.0	CIE Type: Semi-Direct	
Tested Electrics(V, A, pf): 223.2, 0.902, 0.984	Beam Angle(50%Imax): 51.9(°)	ErP Φuse(90°): 20370.674lm	
Lamp Size(W*L*H): 1.192m*0.105m*0.079m	Left=-25.6°, Right=26.3°	IRF(%): 169.539	



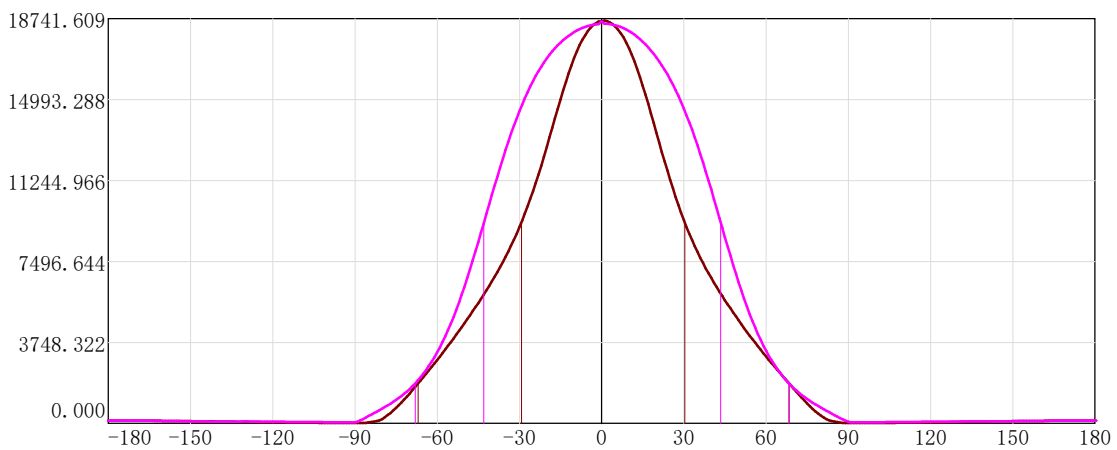
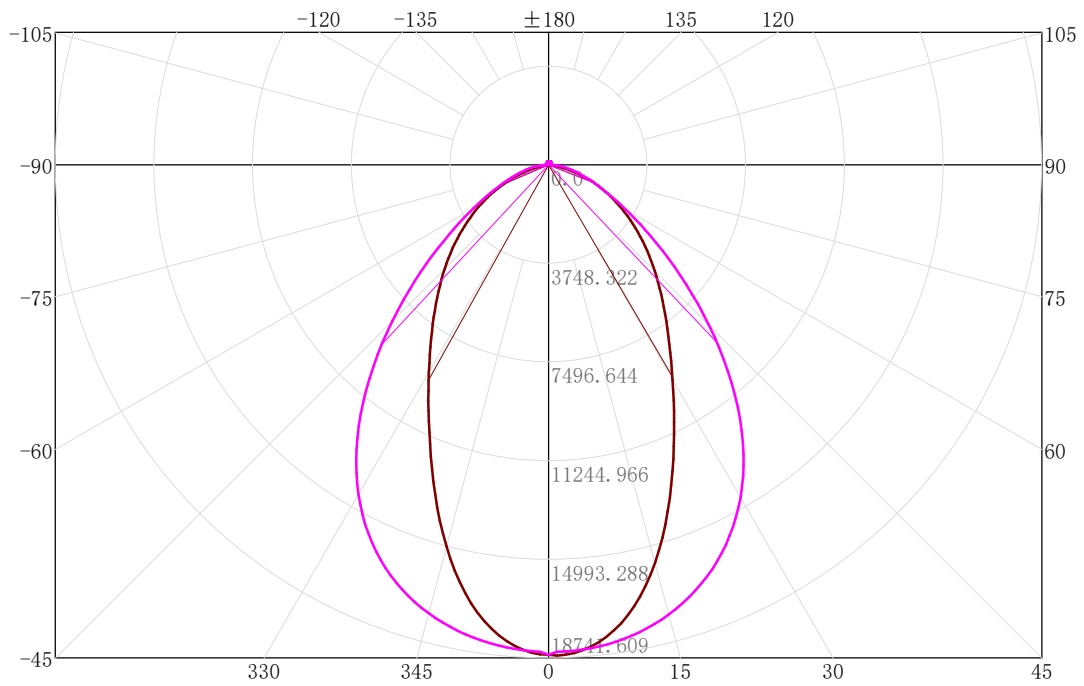
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2D Plane Light Intensity Distribution Curve

Lum. Name: HB200HE4I-PY-D30x90	Lum. Catalog: Linear High Bay	Test ID:
Lamp Name:	Lamp Catalog: 2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/09/22

C Plane Distribution Diagram



—	C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
—	C30.0_210.0 :	59.5	135.3	
—	C90.0_270.0 :	86.4	136.3	

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Zonal Flux Tabulation

Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp	Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-1.0	17.78	17.78	0.06	0.06	47.0-48.0	464.05	21495.18	1.49	69.04
1.0-2.0	53.22	71.00	0.17	0.23	48.0-49.0	451.49	21946.68	1.45	70.49
2.0-3.0	88.46	159.46	0.28	0.51	49.0-50.0	438.63	22385.31	1.41	71.90
3.0-4.0	123.33	282.80	0.40	0.91	50.0-51.0	425.45	22810.76	1.37	73.26
4.0-5.0	157.70	440.49	0.51	1.41	51.0-52.0	412.01	23222.77	1.32	74.59
5.0-6.0	191.39	631.88	0.61	2.03	52.0-53.0	398.42	23621.20	1.28	75.87
6.0-7.0	224.26	856.14	0.72	2.75	53.0-54.0	384.71	24005.90	1.24	77.10
7.0-8.0	256.18	1112.32	0.82	3.57	54.0-55.0	370.91	24376.82	1.19	78.29
8.0-9.0	287.01	1399.33	0.92	4.49	55.0-56.0	357.03	24733.84	1.15	79.44
9.0-10.0	316.58	1715.91	1.02	5.51	56.0-57.0	343.07	25076.91	1.10	80.54
10.0-11.0	344.75	2060.66	1.11	6.62	57.0-58.0	329.07	25405.98	1.06	81.60
11.0-12.0	371.40	2432.07	1.19	7.81	58.0-59.0	315.11	25721.09	1.01	82.61
12.0-13.0	396.45	2828.52	1.27	9.08	59.0-60.0	301.22	26022.31	0.97	83.58
13.0-14.0	419.80	3248.31	1.35	10.43	60.0-61.0	287.43	26309.74	0.92	84.50
14.0-15.0	441.39	3689.71	1.42	11.85	61.0-62.0	273.65	26583.39	0.88	85.38
15.0-16.0	461.22	4150.92	1.48	13.33	62.0-63.0	259.93	26843.32	0.83	86.22
16.0-17.0	479.24	4630.17	1.54	14.87	63.0-64.0	246.29	27089.61	0.79	87.01
17.0-18.0	495.50	5125.67	1.59	16.46	64.0-65.0	232.73	27322.34	0.75	87.75
18.0-19.0	510.08	5635.75	1.64	18.10	65.0-66.0	219.33	27541.66	0.70	88.46
19.0-20.0	522.99	6158.75	1.68	19.78	66.0-67.0	206.09	27747.76	0.66	89.12
20.0-21.0	534.32	6693.06	1.72	21.50	67.0-68.0	192.92	27940.67	0.62	89.74
21.0-22.0	544.16	7237.22	1.75	23.24	68.0-69.0	179.62	28120.29	0.58	90.32
22.0-23.0	552.61	7789.83	1.77	25.02	69.0-70.0	166.03	28286.33	0.53	90.85
23.0-24.0	559.79	8349.62	1.80	26.82	70.0-71.0	152.31	28438.64	0.49	91.34
24.0-25.0	565.81	8915.43	1.82	28.63	71.0-72.0	138.98	28577.62	0.45	91.79
25.0-26.0	570.77	9486.19	1.83	30.47	72.0-73.0	126.28	28703.90	0.41	92.19
26.0-27.0	574.70	10060.90	1.85	32.31	73.0-74.0	114.03	28817.93	0.37	92.56
27.0-28.0	577.60	10638.49	1.86	34.17	74.0-75.0	101.94	28919.87	0.33	92.89
28.0-29.0	579.47	11217.96	1.86	36.03	75.0-76.0	90.04	29009.92	0.29	93.17
29.0-30.0	580.42	11798.38	1.86	37.89	76.0-77.0	78.60	29088.52	0.25	93.43
30.0-31.0	580.55	12378.93	1.86	39.76	77.0-78.0	67.86	29156.37	0.22	93.65
31.0-32.0	579.83	12958.76	1.86	41.62	78.0-79.0	57.87	29214.24	0.19	93.83
32.0-33.0	578.26	13537.03	1.86	43.48	79.0-80.0	48.61	29262.86	0.16	93.99
33.0-34.0	575.90	14112.93	1.85	45.33	80.0-81.0	40.02	29302.87	0.13	94.12
34.0-35.0	572.74	14685.66	1.84	47.17	81.0-82.0	32.43	29335.30	0.10	94.22
35.0-36.0	568.77	15254.43	1.83	48.99	82.0-83.0	26.37	29361.67	0.08	94.30
36.0-37.0	564.02	15818.45	1.81	50.81	83.0-84.0	21.77	29383.44	0.07	94.37
37.0-38.0	558.46	16376.90	1.79	52.60	84.0-85.0	17.93	29401.37	0.06	94.43
38.0-39.0	552.08	16928.98	1.77	54.37	85.0-86.0	14.39	29415.76	0.05	94.48
39.0-40.0	544.93	17473.91	1.75	56.12	86.0-87.0	11.16	29426.92	0.04	94.51
40.0-41.0	537.07	18010.98	1.72	57.85	87.0-88.0	8.42	29435.33	0.03	94.54
41.0-42.0	528.52	18539.51	1.70	59.55	88.0-89.0	6.22	29441.55	0.02	94.56
42.0-43.0	519.30	19058.80	1.67	61.21	89.0-90.0	4.63	29446.18	0.01	94.58
43.0-44.0	509.39	19568.19	1.64	62.85	90.0-91.0	3.79	29449.97	0.01	94.59
44.0-45.0	498.88	20067.07	1.60	64.45	91.0-92.0	3.56	29453.53	0.01	94.60
45.0-46.0	487.84	20554.91	1.57	66.02	92.0-93.0	3.61	29457.14	0.01	94.61
46.0-47.0	476.22	21031.13	1.53	67.55	93.0-94.0	3.67	29460.81	0.01	94.62

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Zonal Flux Tabulation - (Cont.)

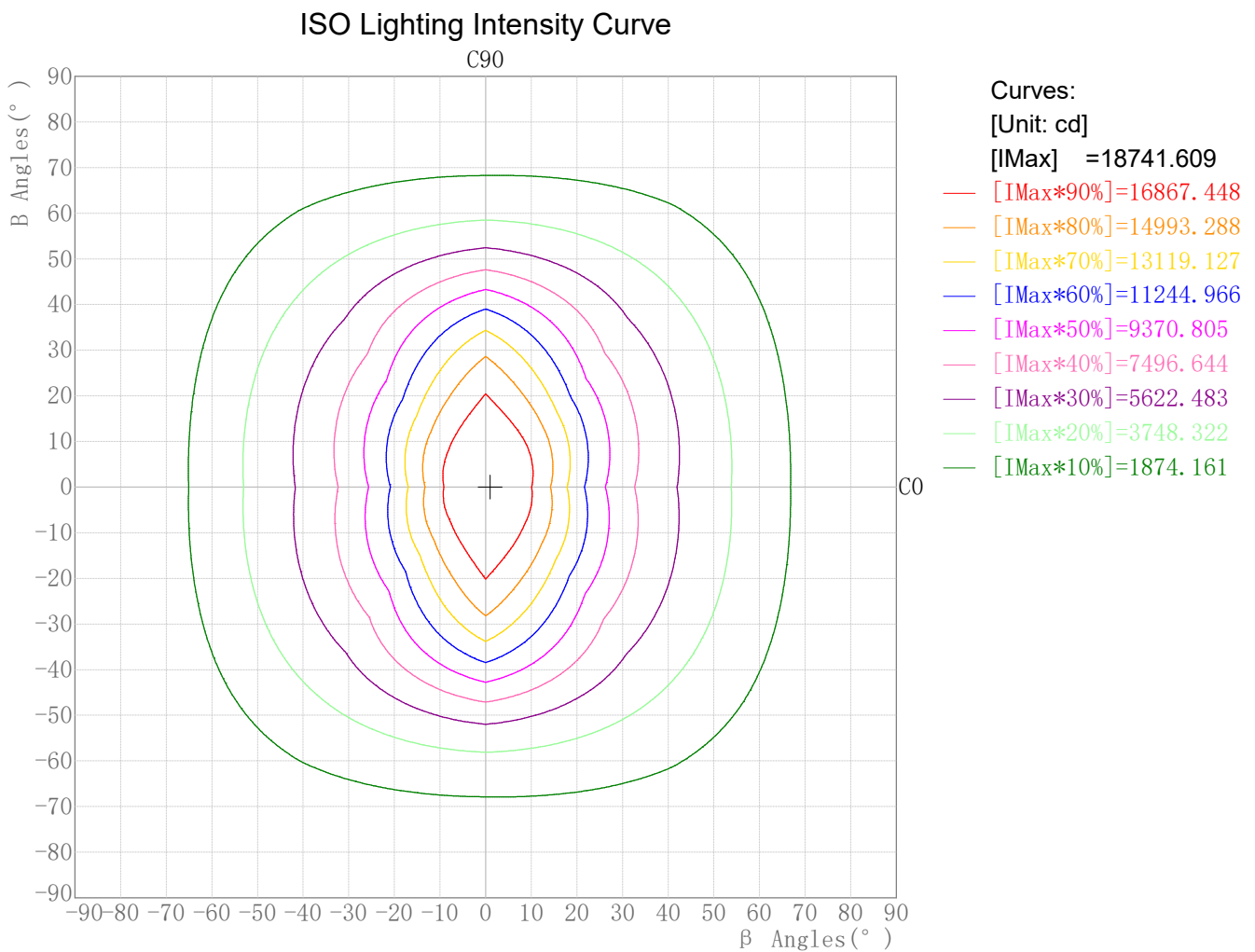
Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp	Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
94.0-95.0	3.77	29464.58	0.01	94.63	141.0-142.0	6.58	29736.01	0.02	95.51
95.0-96.0	3.87	29468.45	0.01	94.65	142.0-143.0	6.54	29742.55	0.02	95.53
96.0-97.0	3.97	29472.43	0.01	94.66	143.0-144.0	6.50	29749.06	0.02	95.55
97.0-98.0	4.07	29476.50	0.01	94.67	144.0-145.0	6.45	29755.51	0.02	95.57
98.0-99.0	4.17	29480.67	0.01	94.69	145.0-146.0	6.40	29761.91	0.02	95.59
99.0-100.0	4.26	29484.93	0.01	94.70	146.0-147.0	6.33	29768.24	0.02	95.61
100.0-101.0	4.35	29489.28	0.01	94.71	147.0-148.0	6.26	29774.50	0.02	95.63
101.0-102.0	4.45	29493.73	0.01	94.73	148.0-149.0	6.18	29780.68	0.02	95.65
102.0-103.0	4.55	29498.28	0.01	94.74	149.0-150.0	6.09	29786.77	0.02	95.67
103.0-104.0	4.65	29502.93	0.01	94.76	150.0-151.0	6.00	29792.77	0.02	95.69
104.0-105.0	4.74	29507.67	0.02	94.77	151.0-152.0	5.89	29798.66	0.02	95.71
105.0-106.0	4.84	29512.51	0.02	94.79	152.0-153.0	5.77	29804.43	0.02	95.73
106.0-107.0	4.94	29517.45	0.02	94.80	153.0-154.0	5.65	29810.08	0.02	95.74
107.0-108.0	5.03	29522.48	0.02	94.82	154.0-155.0	5.52	29815.60	0.02	95.76
108.0-109.0	5.13	29527.61	0.02	94.84	155.0-156.0	5.37	29820.97	0.02	95.78
109.0-110.0	5.23	29532.84	0.02	94.85	156.0-157.0	5.22	29826.19	0.02	95.80
110.0-111.0	5.33	29538.17	0.02	94.87	157.0-158.0	5.06	29831.25	0.02	95.81
111.0-112.0	5.42	29543.59	0.02	94.89	158.0-159.0	4.90	29836.15	0.02	95.83
112.0-113.0	5.52	29549.11	0.02	94.91	159.0-160.0	4.72	29840.88	0.02	95.84
113.0-114.0	5.61	29554.72	0.02	94.92	160.0-161.0	4.54	29845.42	0.01	95.86
114.0-115.0	5.70	29560.43	0.02	94.94	161.0-162.0	4.36	29849.78	0.01	95.87
115.0-116.0	5.79	29566.22	0.02	94.96	162.0-163.0	4.17	29853.94	0.01	95.89
116.0-117.0	5.88	29572.10	0.02	94.98	163.0-164.0	3.97	29857.91	0.01	95.90
117.0-118.0	5.97	29578.07	0.02	95.00	164.0-165.0	3.76	29861.67	0.01	95.91
118.0-119.0	6.05	29584.12	0.02	95.02	165.0-166.0	3.55	29865.22	0.01	95.92
119.0-120.0	6.13	29590.26	0.02	95.04	166.0-167.0	3.34	29868.56	0.01	95.93
120.0-121.0	6.21	29596.47	0.02	95.06	167.0-168.0	3.11	29871.67	0.01	95.94
121.0-122.0	6.29	29602.76	0.02	95.08	168.0-169.0	2.89	29874.56	0.01	95.95
122.0-123.0	6.36	29609.12	0.02	95.10	169.0-170.0	2.66	29877.22	0.01	95.96
123.0-124.0	6.43	29615.55	0.02	95.12	170.0-171.0	2.42	29879.64	0.01	95.97
124.0-125.0	6.50	29622.05	0.02	95.14	171.0-172.0	2.18	29881.82	0.01	95.97
125.0-126.0	6.56	29628.61	0.02	95.16	172.0-173.0	1.93	29883.75	0.01	95.98
126.0-127.0	6.62	29635.23	0.02	95.18	173.0-174.0	1.68	29885.43	0.01	95.99
127.0-128.0	6.67	29641.90	0.02	95.20	174.0-175.0	1.43	29886.86	0.00	95.99
128.0-129.0	6.72	29648.62	0.02	95.23	175.0-176.0	1.18	29888.04	0.00	95.99
129.0-130.0	6.76	29655.38	0.02	95.25	176.0-177.0	0.92	29888.96	0.00	96.00
130.0-131.0	6.80	29662.18	0.02	95.27	177.0-178.0	0.66	29889.61	0.00	96.00
131.0-132.0	6.81	29668.99	0.02	95.29	178.0-179.0	0.40	29890.01	0.00	96.00
132.0-133.0	6.79	29675.78	0.02	95.31	179.0-180.0	0.13	29890.14	0.00	96.00
133.0-134.0	6.73	29682.51	0.02	95.33					
134.0-135.0	6.70	29689.22	0.02	95.36					
135.0-136.0	6.71	29695.93	0.02	95.38					
136.0-137.0	6.73	29702.66	0.02	95.40					
137.0-138.0	6.73	29709.39	0.02	95.42					
138.0-139.0	6.72	29716.11	0.02	95.44					
139.0-140.0	6.69	29722.80	0.02	95.46					
140.0-141.0	6.63	29729.43	0.02	95.49					

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Rectangle ISO Lighting Intensity Diagram

Lum. Name: HB200HE4I-PY-D30x90	Lum. Catalog: Linear High Bay	Test ID:
Lamp Name:	Lamp Catalog: 2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/09/22



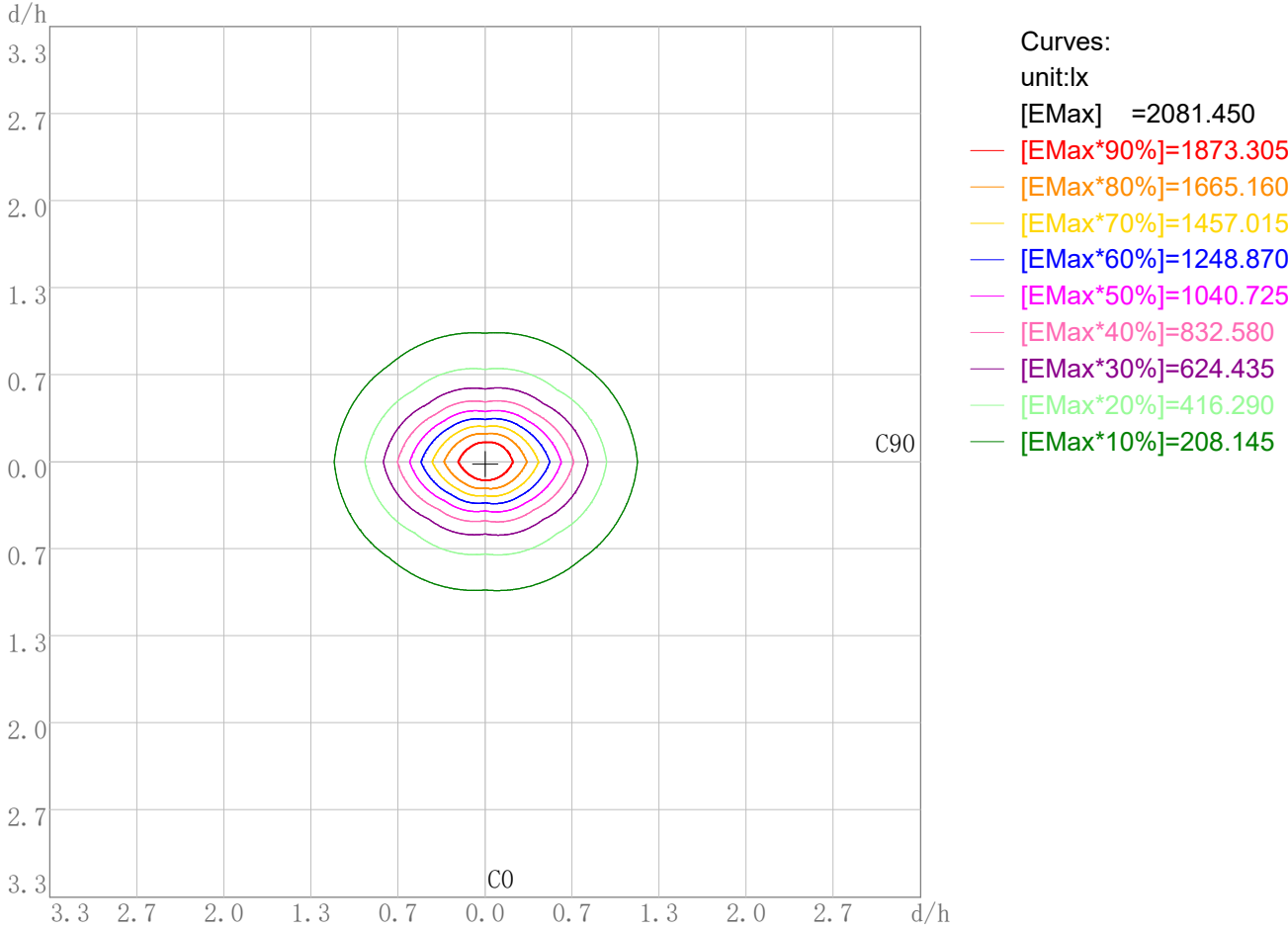
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Plane ISO-Illuminance Diagram

Lum. Name: HB200HE4I-PY-D30x90	Lum. Catalog: Linear High Bay	Test ID:
Lamp Name:	Lamp Catalog: 2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/09/22

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 2081.45
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

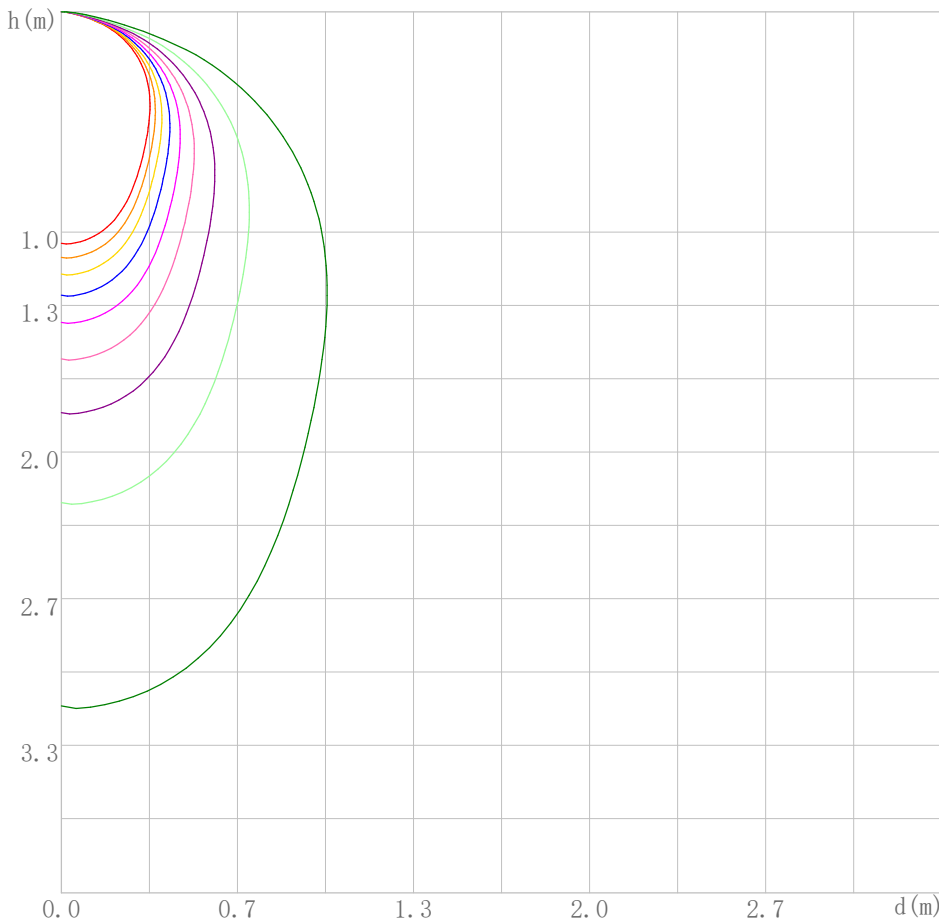
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Space ISO Illuminance Diagram

Lum. Name: HB200HE4I-PY-D30x90	Lum. Catalog: Linear High Bay	Test ID:
Lamp Name:	Lamp Catalog: 2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/09/22

Space ISO Illuminance Curve



Curves:

[Unit: lx]

[EMax] = 18733.047

— [EMax*90%]=16859.743

— [EMax*80%]=14986.438

— [EMax*70%]=13113.133

— [EMax*60%]=11239.828

— [EMax*50%]=9366.524

— [EMax*40%]=7493.219

— [EMax*30%]=5619.914

— [EMax*20%]=3746.609

— [EMax*10%]=1873.305

Space Plane Maximum Illuminance and @Angle: 18733.05lx, 1.0deg

Plane Maximum Lighting Intensity and @Angle: 18741.609cd, 0deg

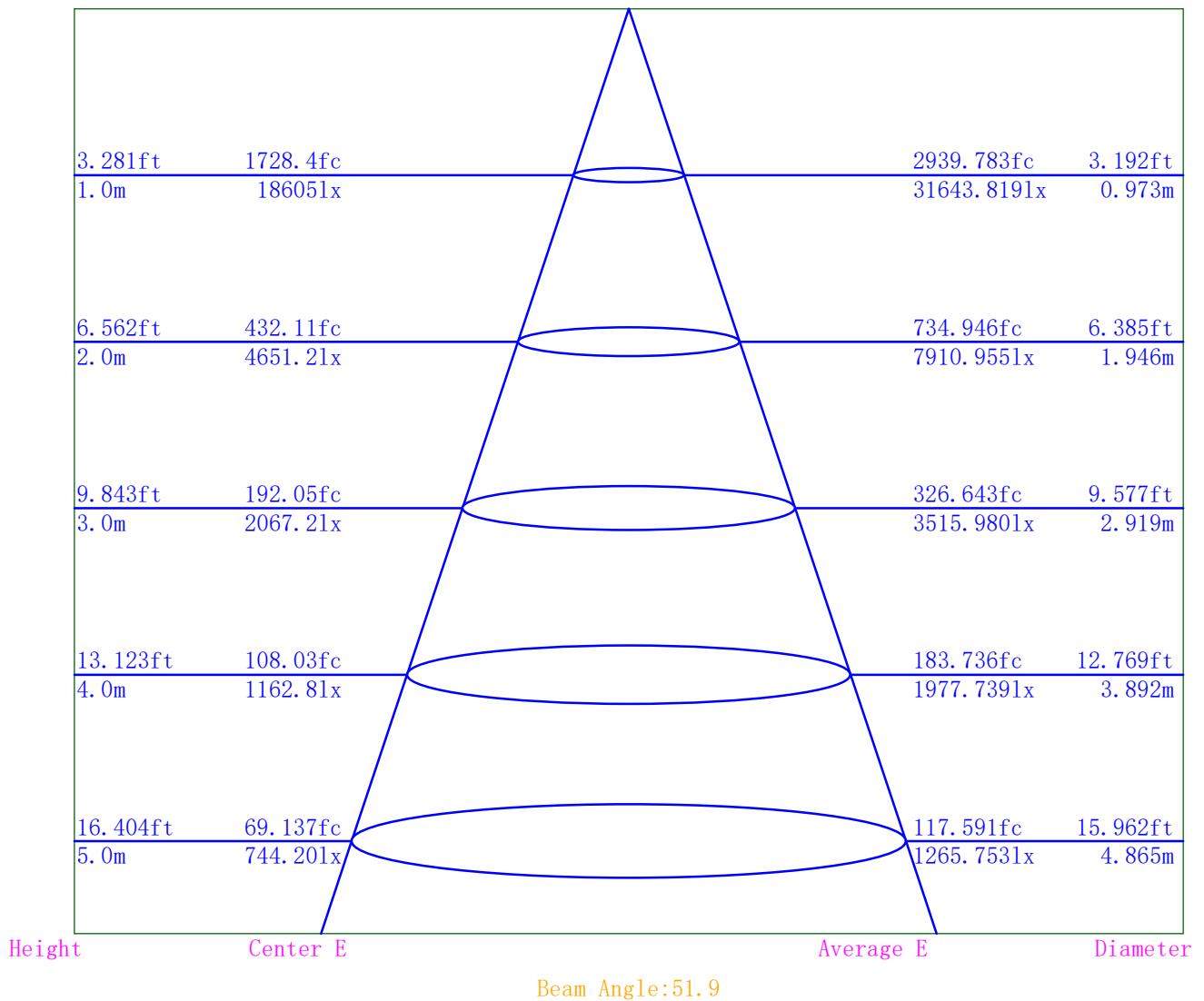
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Illuminance-Distance Diagram

Lum. Name: HB200HE4I-PY-D30x90	Lum. Catalog: Linear High Bay	Test ID:
Lamp Name:	Lamp Catalog: 2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/09/22

Illuminance-Distance Curve



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Indoor Luminance Limiting Curves

Lum. Name: HB200HE4I-PY-D30x90	Lum. Catalog: Linear High Bay	Test ID:
Lamp Name:	Lamp Catalog: 2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/09/22

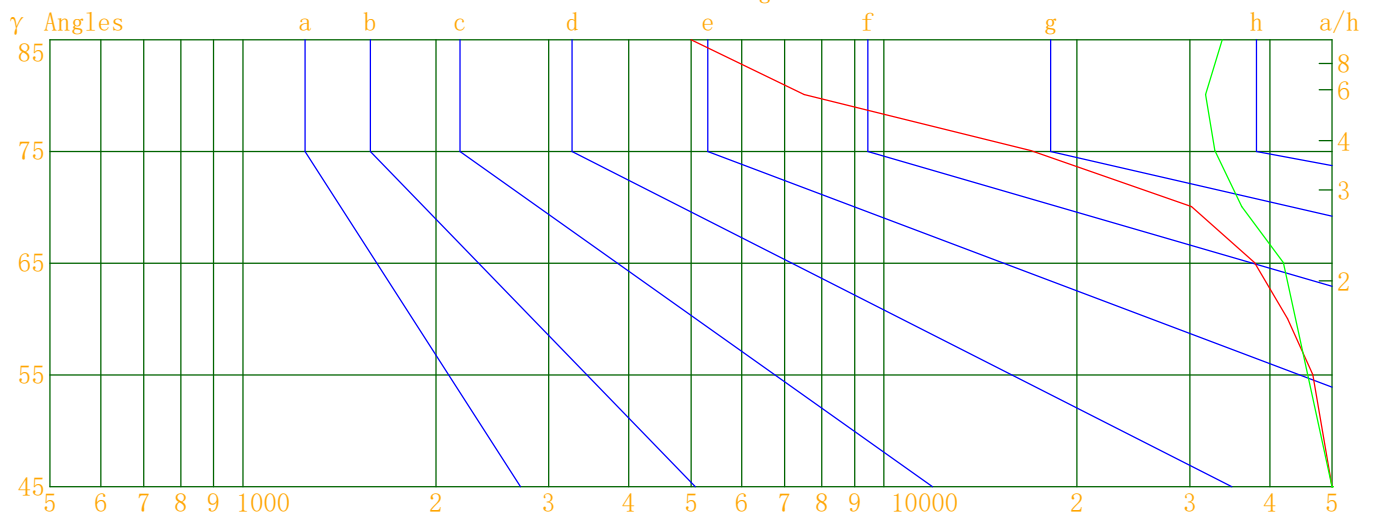
Glare Grade Table

GI	Quality	Using Illuminance							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E	a				2000	1000	500	<=300
			b	c	d	e	f	g	h

Luminance Table

Gama (deg)	45	50	55	60	65	70	75	80	85
C0	54154	50384	46692	42630	37840	30171	16937	7508	5003
C90	91354	76139	62155	50550	41962	36163	32824	31752	33687

Luminance Limiting Curve



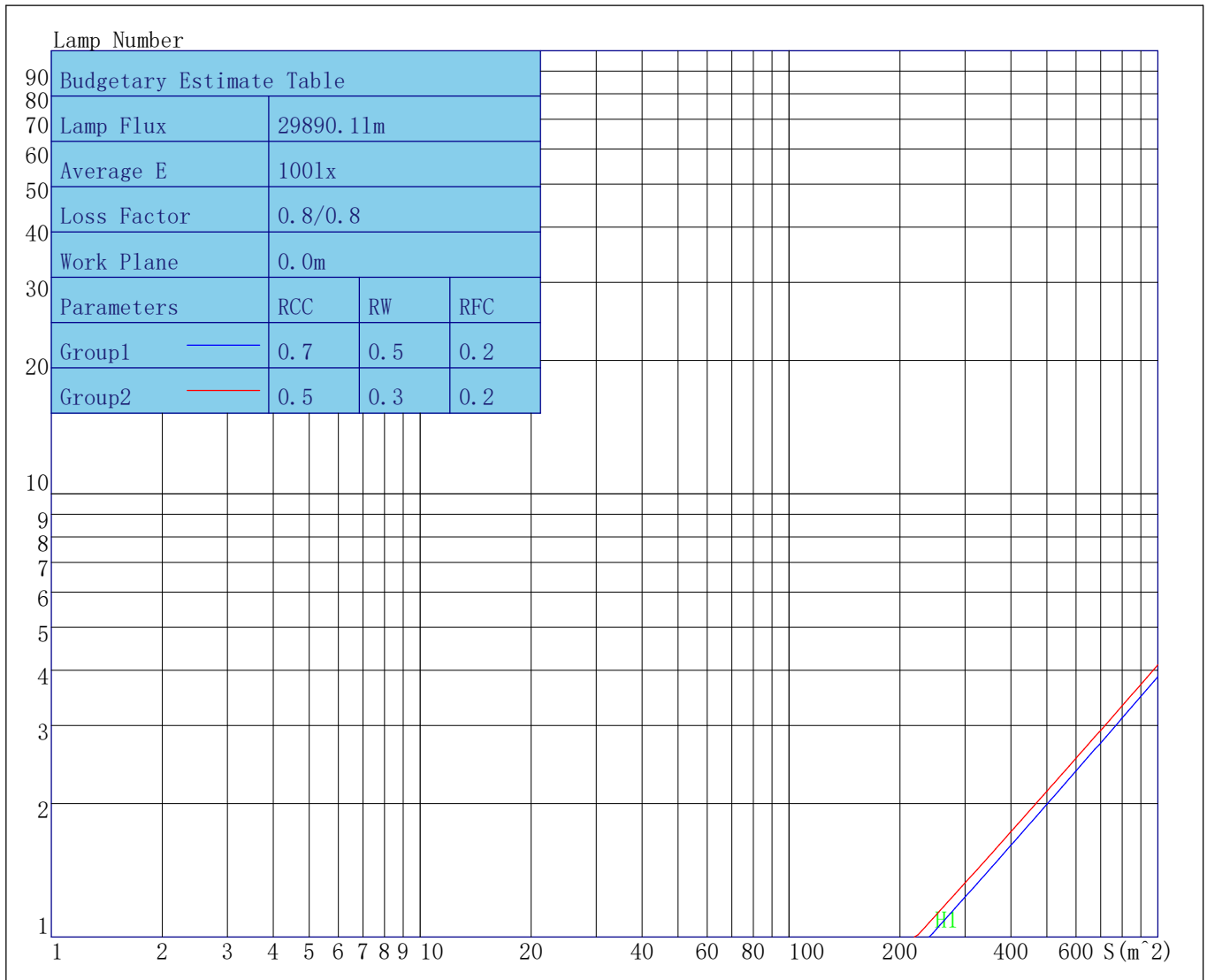
Luminous Size: Length(m)=0.105 Width(m)=1.192 Height(m)=0.079 Area(m²)=0.133455
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

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Indoor Budgetary Estimate Table

Lum. Name: HB200HE4I-PY-D30x90	Lum. Catalog: Linear High Bay	Test ID:
Lamp Name:	Lamp Catalog: 2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/09/22



Parameters1: Rhocc = 0.7 Rhow = 0.5 Rhofc = 0.2 LLF = 0.8
 Parameters2: Rhocc = 0.5 Rhow = 0.3 Rhofc = 0.2 LLF = 0.8
 Average Illuminance(lx): 100 Cavity Height: H1(m) = 2

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Indoor Coefficient of Utilization Table

Lum. Name: HB200HE4I-PY-D30x90	Lum. Catalog: Linear High Bay	Test ID:
Lamp Name:	Lamp Catalog: 2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/09/22

Coefficients of Utilization - Zonal Cavity Method																		
Coef.	Effective Floor Cavity Reflectance RFC=0.20																	
RhoCC (%)	80				70				50			30			10			0
RhoW (%)	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	Coefficient of Utilization (%)																	
0	114	114	114	114	111	111	111	111	106	106	106	101	101	101	97	97	97	95
1	106	102	99	96	103	100	97	94	96	93	91	92	90	88	88	87	85	83
2	98	91	86	81	95	89	84	80	86	82	78	83	79	76	80	77	74	72
3	91	82	75	70	88	80	74	69	77	72	68	75	70	66	72	68	65	63
4	84	74	66	61	82	73	66	60	70	64	59	68	63	59	66	61	58	56
5	78	67	59	54	76	66	59	53	64	58	53	62	56	52	60	55	51	50
6	73	61	54	48	71	60	53	48	58	52	47	57	51	47	55	50	46	45
7	68	56	49	43	66	55	48	43	54	47	43	52	47	42	51	46	42	40
8	64	52	44	39	62	51	44	39	50	43	39	49	43	39	47	42	38	37
9	60	48	41	36	58	47	41	36	46	40	36	45	40	35	44	39	35	34
10	56	45	38	33	55	44	38	33	43	37	33	42	37	33	41	36	32	31

IES Indoor Report

Photometric Filename: HB200HE4I-PY-D30x90.IES

Unified Glare Rating Table

Lum. Name: HB200HE4I-PY-D30x90	Lum. Catalog: Linear High Bay	Test ID:
Lamp Name:	Lamp Catalog: 2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/09/22

Unified Glare Rating Table

Ceiling RCC	0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30	
Wall RW	0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30	
Floor RFC	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
Room Size	Vewed crosswise					Vewed endwise					
X=2H	Y=2H	25.2	26.6	25.6	26.9	27.3	26.6	27.9	26.9	28.3	28.6
	Y=3H	26.2	27.4	26.6	27.8	28.2	27.4	28.6	27.8	28.9	29.3
	Y=4H	26.4	27.5	26.8	27.9	28.3	27.7	28.8	28.2	29.2	29.6
	Y=6H	26.4	27.4	26.9	27.8	28.3	28.0	29.0	28.4	29.4	29.8
	Y=8H	26.4	27.3	26.9	27.8	28.2	28.1	29.0	28.5	29.5	29.9
	Y=12H	26.4	27.3	26.8	27.7	28.1	28.2	29.1	28.6	29.5	30.0
X=4H	Y=2H	25.9	27.0	26.3	27.4	27.8	26.9	28.0	27.4	28.4	28.8
	Y=3H	27.0	27.9	27.5	28.4	28.8	28.0	28.9	28.4	29.3	29.7
	Y=4H	27.3	28.1	27.8	28.5	29.0	28.4	29.2	28.9	29.6	30.1
	Y=6H	27.4	28.0	27.9	28.5	29.0	28.8	29.4	29.3	29.9	30.4
	Y=8H	27.3	27.9	27.8	28.4	28.9	28.9	29.5	29.4	30.0	30.5
	Y=12H	27.3	27.8	27.8	28.3	28.9	29.0	29.5	29.5	30.0	30.6
X=8H	Y=4H	27.5	28.1	28.0	28.6	29.1	28.5	29.1	29.0	29.6	30.1
	Y=6H	27.6	28.1	28.1	28.6	29.2	28.9	29.4	29.5	29.9	30.5
	Y=8H	27.6	28.0	28.1	28.5	29.1	29.1	29.5	29.6	30.0	30.6
	Y=12H	27.6	27.9	28.1	28.4	29.0	29.3	29.6	29.8	30.1	30.7
X=12H	Y=4H	27.5	28.0	28.0	28.5	29.0	28.5	29.0	29.0	29.5	30.0
	Y=6H	27.6	28.0	28.2	28.5	29.1	28.9	29.3	29.5	29.8	30.4
	Y=8H	27.6	27.9	28.2	28.5	29.1	29.1	29.4	29.6	29.9	30.6
Variations with the objverer position at spacings											
S=1.0H	1.1/-1.2					0.5/-0.5					
S=1.5H	2.0/-2.6					0.9/-1.0					
S=2.0H	2.3/-3.7					1.3/-1.5					
Reduced UGR Table:											
Nordic Standard Table:	BKO					BKO					
Correction Value	1.5					1.7					

o the CIE Pub. 117, data has been corrected, refers to the lamp's lumens 8.2flm.

IES Indoor Report

Photometric Filename: HB200HE4I-PY-D30x90.IES

Candela Tabulation

V/H	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0
γ 0.0	18604.9	18604.9	18604.9	18604.9	18604.9	18604.9	18604.9	18604.9
γ 1.0	18741.6	18599.4	18504.6	18426.8	18711.0	18551.0	18496.6	18431.7
γ 2.0	18697.2	18585.1	18497.7	18389.6	18634.4	18493.1	18482.2	18403.4
γ 3.0	18610.8	18545.5	18484.1	18331.7	18516.8	18410.2	18462.0	18350.7
γ 4.0	18487.3	18485.1	18463.4	18249.6	18356.8	18302.4	18432.2	18276.1
γ 5.0	18323.7	18402.7	18435.0	18141.8	18153.7	18170.7	18396.0	18177.8
γ 6.0	18118.3	18292.0	18396.5	18005.3	17909.8	18012.4	18354.8	18059.0
γ 7.0	17872.3	18158.9	18351.2	17841.6	17619.7	17825.1	18306.5	17916.3
γ 8.0	17587.0	18000.7	18297.4	17675.7	17292.3	17615.1	18250.4	17749.6
γ 9.0	17260.1	17815.3	18235.2	17485.3	16926.3	17377.8	18187.5	17557.9
γ 10.0	16897.7	17604.5	18166.1	17261.6	16521.3	17111.0	18114.0	17341.5
γ 11.0	16496.8	17369.6	18084.8	17007.4	16084.8	16820.6	18035.4	17101.4
γ 12.0	16060.6	17103.8	17995.8	16724.9	15623.5	16511.1	17947.3	16838.7
γ 13.0	15596.5	16814.1	17899.9	16424.5	15136.0	16172.2	17851.1	16551.4
γ 14.0	15104.9	16501.1	17793.5	16099.3	14635.4	15813.6	17744.4	16237.8
γ 15.0	14594.9	16160.7	17675.8	15753.5	14128.7	15436.8	17630.9	15902.2
γ 16.0	14081.2	15799.5	17550.5	15389.2	13613.8	15043.3	17505.6	15544.0
γ 17.0	13559.1	15419.2	17412.9	15005.1	13101.5	14637.1	17370.1	15164.9
γ 18.0	13038.8	15016.6	17265.7	14607.2	12599.1	14224.8	17224.8	14775.0
γ 19.0	12528.4	14605.4	17109.9	14203.9	12108.1	13802.7	17067.4	14369.5
γ 20.0	12026.8	14179.8	16942.7	13790.5	11635.0	13375.3	16898.4	13952.4
γ 21.0	11542.3	13745.4	16763.1	13372.4	11183.9	12952.3	16717.5	13530.2
γ 22.0	11082.9	13308.6	16574.4	12955.5	10750.4	12529.0	16521.1	13100.9
γ 23.0	10642.6	12874.2	16372.0	12540.1	10338.9	12115.3	16313.4	12673.7
γ 24.0	10223.3	12437.4	16157.3	12125.9	9952.6	11717.3	16091.0	12254.3
γ 25.0	9830.6	12012.1	15930.6	11724.3	9587.5	11334.4	15854.5	11838.4
γ 26.0	9458.8	11594.9	15688.7	11332.5	9246.8	10970.9	15605.2	11427.9
γ 27.0	9108.8	11185.8	15432.3	10945.6	8927.2	10628.4	15341.3	11029.9
γ 28.0	8783.7	10792.6	15164.5	10574.2	8623.4	10271.4	15058.6	10642.3
γ 29.0	8477.3	10413.6	14882.8	10215.5	8336.3	9925.6	14759.5	10266.5
γ 30.0	8187.1	10044.7	14584.4	9867.4	8066.8	9596.6	14448.2	9906.6
γ 31.0	7915.0	9695.1	14271.7	9537.0	7810.6	9280.0	14120.1	9561.1
γ 32.0	7655.7	9358.4	13942.5	9218.3	7567.7	8974.7	13777.4	9228.6
γ 33.0	7409.5	9033.6	13596.5	8910.2	7337.3	8684.4	13421.4	8911.9
γ 34.0	7178.8	8725.7	13240.2	8617.4	7113.7	8403.1	13047.9	8607.2
γ 35.0	6956.6	8432.2	12868.7	8335.6	6899.4	8132.5	12662.3	8313.7
γ 36.0	6743.8	8147.6	12480.5	8062.9	6693.6	7875.3	12265.9	8034.6
γ 37.0	6539.5	7878.9	12082.4	7802.3	6493.2	7624.2	11857.3	7765.7
γ 38.0	6342.2	7617.1	11670.6	7549.3	6300.0	7379.9	11440.7	7504.6
γ 39.0	6151.4	7363.8	11249.0	7298.4	6112.1	7143.8	11017.6	7254.7
γ 40.0	5967.9	7121.2	10823.0	7056.4	5926.8	6912.5	10584.2	7013.7
γ 41.0	5789.2	6886.8	10388.7	6827.4	5746.2	6687.8	10145.8	6780.0
γ 42.0	5615.0	6656.6	9947.7	6606.2	5569.3	6469.4	9707.4	6553.9
γ 43.0	5445.1	6435.6	9506.9	6388.4	5394.3	6255.2	9266.0	6333.3
γ 44.0	5276.3	6219.0	9062.6	6169.8	5223.0	6044.3	8828.5	6122.0
γ 45.0	5110.3	6006.5	8620.8	5959.8	5054.3	5839.0	8396.7	5915.5
γ 46.0	4949.9	5799.2	8188.7	5755.6	4886.5	5637.4	7966.1	5708.6

IES Indoor Report

Photometric Filename:HB200HE4I-PY-D30x90.IES

Candela Tabulation - (Cont.)

V/H	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0
γ 47.0	4791.0	5598.6	7761.4	5538.5	4719.9	5437.8	7544.4	5505.4
γ 48.0	4632.9	5399.0	7339.6	5329.2	4555.5	5241.0	7134.2	5305.0
γ 49.0	4476.9	5203.4	6931.7	5126.8	4392.0	5046.7	6732.9	5108.8
γ 50.0	4322.1	5011.5	6531.5	4930.8	4231.4	4854.1	6345.9	4917.0
γ 51.0	4168.7	4811.1	6144.3	4739.9	4073.1	4663.6	5973.8	4728.4
γ 52.0	4019.9	4616.8	5776.3	4551.4	3913.3	4477.2	5612.2	4542.8
γ 53.0	3871.6	4429.5	5422.1	4365.0	3755.2	4293.4	5266.4	4360.5
γ 54.0	3722.0	4248.7	5081.1	4181.0	3597.5	4114.2	4936.8	4181.7
γ 55.0	3574.1	4074.5	4757.8	4002.7	3438.3	3935.7	4622.0	4005.9
γ 56.0	3426.6	3901.9	4448.6	3824.2	3281.6	3758.5	4323.7	3832.8
γ 57.0	3279.3	3730.7	4154.9	3648.3	3126.5	3583.8	4043.2	3661.3
γ 58.0	3134.2	3562.1	3878.4	3475.8	2968.1	3413.0	3774.7	3494.5
γ 59.0	2989.4	3397.8	3617.7	3308.8	2809.0	3246.1	3521.6	3330.2
γ 60.0	2844.6	3235.8	3373.1	3144.3	2654.6	3081.0	3284.6	3168.1
γ 61.0	2702.1	3078.6	3144.8	2982.8	2500.7	2917.6	3061.6	3009.1
γ 62.0	2558.4	2918.1	2929.6	2818.2	2348.2	2756.8	2853.6	2852.9
γ 63.0	2415.6	2762.8	2728.7	2659.8	2194.5	2598.8	2660.0	2699.8
γ 64.0	2275.0	2609.9	2541.9	2502.7	2038.4	2440.1	2476.4	2549.1
γ 65.0	2134.2	2460.3	2366.7	2349.1	1885.4	2285.6	2304.7	2401.6
γ 66.0	1991.2	2314.4	2202.9	2198.8	1738.6	2133.2	2144.4	2256.0
γ 67.0	1846.0	2171.8	2051.5	2052.0	1597.1	1982.4	1995.2	2113.8
γ 68.0	1700.6	2029.9	1909.1	1905.2	1445.3	1835.8	1856.1	1974.9
γ 69.0	1551.3	1892.7	1775.0	1763.3	1270.4	1692.6	1726.6	1838.6
γ 70.0	1377.1	1756.2	1650.6	1622.9	1087.2	1549.7	1603.7	1704.5
γ 71.0	1185.9	1623.8	1534.2	1487.3	922.3	1406.9	1488.8	1574.4
γ 72.0	999.8	1495.4	1425.0	1354.2	784.5	1271.9	1381.0	1446.7
γ 73.0	843.8	1369.8	1322.9	1225.5	653.4	1145.0	1279.3	1321.1
γ 74.0	713.4	1242.1	1226.2	1097.9	517.4	1015.2	1183.9	1195.1
γ 75.0	585.0	1107.6	1133.8	976.1	402.8	879.2	1093.9	1065.3
γ 76.0	466.2	966.0	1047.9	850.8	315.6	742.9	1006.8	930.3
γ 77.0	374.3	824.9	965.2	724.4	239.4	618.8	924.0	796.8
γ 78.0	298.2	689.6	885.4	606.0	179.9	501.5	845.6	667.3
γ 79.0	226.4	570.6	809.5	498.2	145.6	371.4	769.5	551.8
γ 80.0	174.0	462.1	735.8	382.4	122.6	257.8	696.4	439.3
γ 81.0	143.1	349.6	664.7	267.0	101.5	174.8	625.7	322.9
γ 82.0	119.4	250.2	596.0	176.3	81.6	135.3	555.2	220.6
γ 83.0	97.9	172.9	527.8	133.0	62.6	110.1	486.0	156.4
γ 84.0	78.0	133.7	459.4	107.4	43.2	87.3	417.3	123.9
γ 85.0	58.2	107.2	391.8	84.8	23.4	66.2	348.3	98.3
γ 86.0	37.6	83.9	325.4	63.7	16.8	45.9	279.2	75.2
γ 87.0	20.6	62.1	257.7	44.1	15.0	39.1	211.6	53.1
γ 88.0	17.4	41.8	192.0	38.1	13.8	36.6	144.7	41.5
γ 89.0	15.7	36.0	131.1	35.9	9.0	32.1	83.3	38.9
γ 90.0	14.2	34.0	81.6	31.9	9.1	32.1	56.1	34.6
γ 91.0	9.8	30.0	56.1	31.7	9.7	32.4	55.1	33.8
γ 92.0	10.4	30.2	55.3	31.9	10.5	33.0	56.1	34.0
γ 93.0	11.1	30.7	55.2	32.3	11.1	33.8	56.5	34.5

IES Indoor Report

Photometric Filename: HB200HE4I-PY-D30x90.IES

Candela Tabulation - (Cont.)

V/H	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0
γ 94.0	11.9	31.3	55.8	33.1	11.9	34.7	58.1	35.1
γ 95.0	12.5	32.0	57.4	34.1	12.7	35.6	59.6	35.9
γ 96.0	13.5	32.9	58.9	35.0	13.5	36.7	60.8	36.8
γ 97.0	14.2	33.5	60.1	36.1	14.4	37.8	61.8	37.6
γ 98.0	15.1	34.4	61.4	37.1	15.3	38.8	62.8	38.7
γ 99.0	16.1	35.2	62.4	38.2	16.0	39.9	63.6	39.7
γ 100.0	17.0	36.1	63.3	39.3	17.0	41.0	64.6	40.7
γ 101.0	18.0	37.0	64.1	40.6	18.0	42.1	65.6	41.8
γ 102.0	19.0	38.0	65.2	41.8	19.1	43.3	66.8	42.8
γ 103.0	20.1	39.0	66.3	42.8	20.1	44.4	67.8	43.8
γ 104.0	21.2	40.0	67.3	44.1	21.1	45.5	68.9	44.9
γ 105.0	22.3	40.9	68.5	45.3	22.2	46.7	69.9	46.0
γ 106.0	23.4	42.0	69.5	46.6	23.3	47.9	70.9	47.2
γ 107.0	24.5	43.1	70.5	47.9	24.4	49.3	72.1	48.4
γ 108.0	25.7	44.3	71.7	49.2	25.6	50.5	73.2	49.5
γ 109.0	26.9	45.5	72.8	50.7	26.9	51.8	74.4	50.8
γ 110.0	28.1	46.8	74.0	52.1	28.1	53.1	75.6	52.0
γ 111.0	29.4	48.2	75.2	53.4	29.3	54.6	76.7	53.4
γ 112.0	30.7	49.5	76.3	54.9	30.6	56.0	77.7	54.7
γ 113.0	32.0	51.0	77.5	56.4	31.8	57.4	78.9	56.0
γ 114.0	33.5	52.6	78.6	57.8	33.2	59.0	79.9	57.3
γ 115.0	34.9	54.1	79.7	59.3	34.6	60.4	80.9	58.7
γ 116.0	36.4	55.7	80.9	60.9	36.2	61.8	82.0	60.1
γ 117.0	38.0	57.2	81.8	62.4	37.7	63.4	83.1	61.5
γ 118.0	39.5	59.0	82.9	64.0	39.2	64.9	84.0	63.0
γ 119.0	41.2	60.8	84.0	65.7	40.8	66.4	85.2	64.4
γ 120.0	42.8	62.4	85.1	67.1	42.6	67.8	86.3	65.9
γ 121.0	44.6	64.0	86.2	68.8	44.3	69.3	87.4	67.4
γ 122.0	46.4	65.8	87.4	70.5	46.0	70.9	88.4	68.9
γ 123.0	48.2	67.4	88.5	72.1	48.0	72.4	89.5	70.4
γ 124.0	50.2	69.1	89.5	73.8	49.9	73.9	90.6	72.0
γ 125.0	52.2	70.7	90.6	75.4	51.9	75.4	91.7	73.6
γ 126.0	54.2	72.5	91.7	76.9	53.9	76.8	92.9	75.3
γ 127.0	56.1	74.3	92.9	78.5	56.0	78.2	93.9	76.7
γ 128.0	58.4	76.1	93.9	80.4	58.1	79.6	95.2	78.5
γ 129.0	60.5	77.7	95.1	82.0	60.3	80.9	96.4	80.2
γ 130.0	62.8	79.5	96.3	83.7	62.6	82.2	97.3	81.4
γ 131.0	65.1	81.3	97.3	85.4	65.0	83.6	97.4	82.8
γ 132.0	67.4	83.1	98.6	87.1	67.3	85.0	96.2	84.4
γ 133.0	69.8	85.0	99.5	88.8	69.7	86.4	92.0	83.1
γ 134.0	72.2	86.8	100.7	90.6	72.1	87.6	88.8	81.4
γ 135.0	74.7	88.5	101.7	92.2	74.7	89.1	88.0	82.5
γ 136.0	77.1	90.3	102.8	94.0	77.0	90.8	88.2	85.3
γ 137.0	79.6	92.0	103.2	95.6	79.5	92.4	88.5	89.7
γ 138.0	82.1	93.7	103.1	97.2	82.0	94.0	88.9	92.3
γ 139.0	84.6	95.3	104.1	98.9	84.3	95.6	90.1	94.0
γ 140.0	87.1	97.1	100.8	100.5	86.6	97.1	91.5	95.8
