

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: METALUX

Report Number:

Luminaire Tested: EHBR1-48-UNV-TASM-L840-UPL12

Issue Date: 3/20/2026

**Test Information**

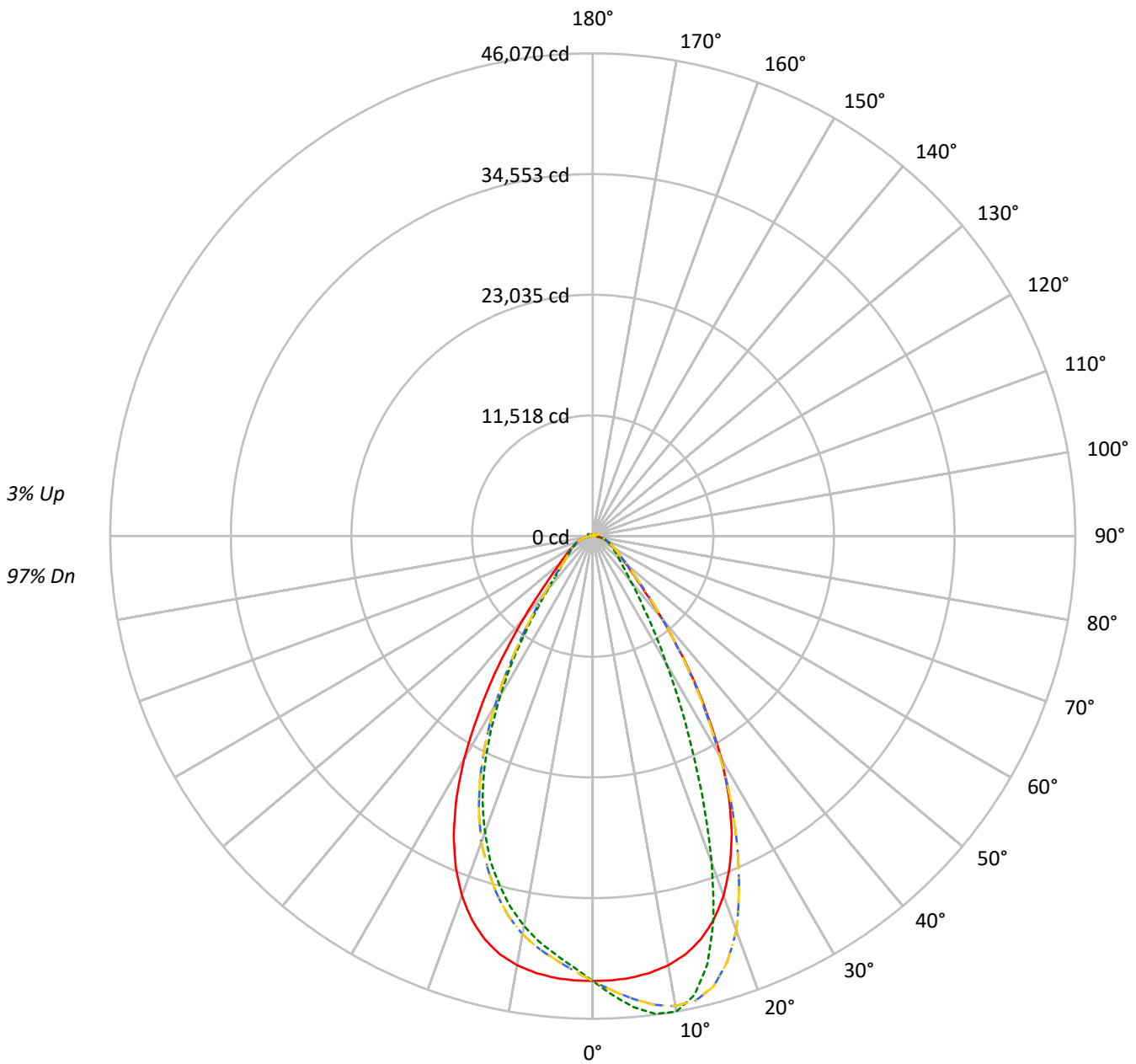
Test Method: LM-79-2019  
Report Number: REPORT IS A COMBINATION OF REPORTS P1431836 AND P1431635  
Test Lab: INNOVATION CENTER  
Issue Date: 3/20/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: EHBR1-48-UNV-TASM-L840-UPL12  
Description: Elevate Round Highbay at, 48000 lumens, 4000K 80CRI LEDs with TASM lens  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 48682.1 lumens  
Efficiency: N/A  
Efficacy: 183.0 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 0.84 / 0.9  
Luminous Opening: Vertical Cylinder (Dia: 1.71' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 266  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER:  
CATALOG NUMBER: EHBR1-48-UNV-TASM-L840-UPL12

### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - - - 90°-270°    - · - 135°-315°



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				20	
RC	80				70				50				30				10				0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97				97
1	111	108	105	102	108	105	103	100	101	99	97	97	95	93	93	91	90	88				88
2	104	98	93	89	102	96	92	88	93	89	86	89	86	83	86	84	81	79				79
3	98	90	84	79	96	89	83	79	85	81	77	83	79	75	80	77	74	72				72
4	92	83	77	72	90	82	76	71	79	74	70	77	72	69	75	71	68	66				66
5	87	77	70	65	85	76	69	65	74	68	64	72	67	63	70	66	62	60				60
6	82	71	65	60	80	70	64	59	69	63	59	67	62	58	65	61	57	56				56
7	77	67	60	55	76	66	59	55	64	58	54	63	58	54	61	57	53	52				52
8	73	62	56	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				48
9	69	58	52	47	68	58	52	47	57	51	47	56	50	47	54	50	46	45				45
10	66	55	49	44	65	54	48	44	53	48	44	52	47	44	52	47	43	42				42

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	199380	199380	199380	199380
5°	198167	211407	198167	187883
10°	195731	216835	195731	177816
15°	189952	201507	189952	164254
20°	177653	161581	177653	146304
25°	157237	111952	157237	122609
30°	127670	72833	127670	91736
35°	91569	47168	91569	61071
40°	59203	32511	59203	38514
45°	37563	25184	37563	27442
50°	27895	21400	27895	22858
55°	22775	19494	22775	20177
60°	19722	18569	19722	18682
65°	17978	17909	17978	17832
70°	17039	17548	17039	17321
75°	15935	16975	15935	16467
80°	13998	16026	13998	14983
85°	9057	11443	9057	10911

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 52812 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	4037.0	8.3
10°-20°	10982.9	22.6
20°-30°	12880.6	26.5
30°-40°	8957.7	18.4
40°-50°	4451.5	9.1
50°-60°	2662.5	5.5
60°-70°	1874.0	3.8
70°-80°	1207.2	2.5
80°-90°	385.6	0.8
90°-100°	34.0	0.1
100°-110°	213.4	0.4
110°-120°	392.6	0.8
120°-130°	234.7	0.5
130°-140°	143.9	0.3
140°-150°	101.3	0.2
150°-160°	68.1	0.1
160°-170°	41.0	0.1
170°-180°	14.1	0.0
0°-30°	27900.5	57.3
0°-40°	36858.2	75.7
0°-60°	43972.2	90.3
0°-90°	47438.9	97.4
90°-120°	640.1	1.3
90°-150°	1120.0	2.3
90°-180°	1243.0	2.6
0°-180°	48682.1	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	42457	42457	42457	42457	42457	
5°	42312	45139	42312	40116	42312	4015
15°	39851	42275	39851	34460	39851	11137
25°	31400	22357	31400	24485	31400	14216
35°	16806	8657	16806	11209	16806	10492
45°	6078	4075	6078	4440	6078	4973
55°	3078	2634	3078	2727	3078	2815
65°	1876	1869	1876	1861	1876	1885
75°	1122	1196	1122	1160	1122	1178
85°	311	393	311	375	311	346
90°	10	15	10	10	10	19
95°	18	21	18	16	18	19
105°	98	55	98	75	98	132
115°	418	360	418	339	418	380
125°	268	285	268	246	268	247
135°	173	201	173	180	173	137
145°	159	167	159	154	159	100
155°	145	152	145	143	145	68
165°	144	151	144	142	144	41
175°	148	155	148	145	148	14
180°	149	149	149	149	149	



TEST NUMBER:

CATALOG NUMBER: EHBR1-48-UNV-TASM-L840-UPL12

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	42456.6	42456.6	42456.6	42456.6	42456.6	42456.6	42456.6	42456.6	42456.6	42456.6	42456.6
2.5°	42432.0	42980.5	43424.7	43717.7	43862.6	43717.7	43424.7	42980.5	42432.0	41886.6	41511.6
5°	42311.8	43410.4	44341.1	44950.1	45138.8	44950.1	44341.1	43410.4	42311.8	41273.6	40585.0
7.5°	42024.3	43736.0	45118.9	45829.8	46003.4	45829.8	45118.9	43736.0	42024.3	40554.7	39684.5
10°	41585.7	43941.4	45539.2	46048.8	46069.5	46048.8	45539.2	43941.4	41585.7	39605.7	38579.5
12.5°	40885.9	43868.2	45398.3	45231.1	44851.4	45231.1	45398.3	43868.2	40885.9	38446.6	37152.1
15°	39850.9	43434.3	44505.9	43145.3	42275.1	43145.3	44505.9	43434.3	39850.9	36881.4	35379.9
17.5°	38392.4	42622.2	42642.9	39951.2	38309.6	39951.2	42642.9	42622.2	38392.4	34967.5	33313.9
20°	36512.8	41319.8	40077.8	35154.6	33209.6	35154.6	40077.8	41319.8	36512.8	32704.9	31082.4
22.5°	34156.2	39563.5	36505.6	30329.2	27675.8	30329.2	36505.6	39563.5	34156.2	30073.7	28385.1
25°	31400.0	37411.6	32662.7	25071.6	22356.8	25071.6	32662.7	37411.6	31400.0	26938.5	25411.6
27.5°	28158.2	34684.1	28570.6	20487.5	17982.9	20487.5	28570.6	34684.1	28158.2	23701.5	22141.9
30°	24557.3	31187.5	24312.1	16315.8	14009.4	16315.8	24312.1	31187.5	24557.3	20064.8	18668.4
32.5°	20525.7	27760.1	20222.4	13073.2	11119.5	13073.2	20222.4	27760.1	20525.7	16594.5	15135.2
35°	16806.2	23472.2	16534.8	10272.4	8657.1	10272.4	16534.8	23472.2	16806.2	13318.4	11885.4
37.5°	13189.4	19420.7	13180.7	8271.8	7021.8	8271.8	13180.7	19420.7	13189.4	10354.4	9191.3
40°	10261.3	15185.3	10327.4	6603.1	5635.0	6603.1	10327.4	15185.3	10261.3	7878.5	7134.1
42.5°	7775.0	11611.5	8117.3	5419.2	4786.3	5419.2	8117.3	11611.5	7775.0	6207.4	5650.1
45°	6077.6	8544.8	6338.8	4572.2	4074.6	4572.2	6338.8	8544.8	6077.6	4998.9	4624.7
47.5°	4949.5	6603.9	5137.4	3921.7	3573.0	3921.7	5137.4	6603.9	4949.5	4228.2	3948.0
50°	4157.4	5067.3	4265.6	3423.3	3189.3	3423.3	4265.6	5067.3	4157.4	3620.8	3433.7
52.5°	3571.4	4132.7	3632.7	3050.8	2893.1	3050.8	3632.7	4132.7	3571.4	3167.8	3051.6
55°	3077.8	3474.3	3159.0	2743.5	2634.4	2743.5	3159.0	3474.3	3077.8	2819.1	2733.1
57.5°	2702.9	2947.3	2743.5	2481.5	2409.1	2481.5	2743.5	2947.3	2702.9	2508.6	2462.4
60°	2370.9	2552.4	2421.0	2253.0	2232.3	2253.0	2421.0	2552.4	2370.9	2257.0	2226.8
62.5°	2115.3	2230.0	2140.8	2047.6	2029.3	2047.6	2140.8	2230.0	2115.3	2027.7	2033.3
65°	1876.5	1983.2	1913.1	1862.9	1869.3	1862.9	1913.1	1983.2	1876.5	1835.9	1844.6
67.5°	1691.8	1747.5	1717.2	1688.6	1695.8	1688.6	1717.2	1747.5	1691.8	1652.0	1665.5
70°	1495.1	1554.8	1523.8	1527.8	1539.7	1527.8	1523.8	1554.8	1495.1	1483.2	1493.5
72.5°	1307.2	1353.4	1343.1	1352.6	1365.4	1352.6	1343.1	1353.4	1307.2	1305.6	1306.4
75°	1122.5	1157.6	1162.3	1175.9	1195.8	1175.9	1162.3	1157.6	1122.5	1110.6	1124.9
77.5°	921.1	960.9	976.1	994.4	1023.8	994.4	976.1	960.9	921.1	929.1	936.2
80°	736.4	754.7	788.2	801.7	843.1	801.7	788.2	754.7	736.4	722.9	733.2
82.5°	539.0	555.7	584.4	609.8	633.7	609.8	584.4	555.7	539.0	532.6	533.4
85°	311.3	336.8	355.9	386.1	393.3	386.1	355.9	336.8	311.3	318.5	311.3
87.5°	109.1	117.0	133.7	145.7	146.5	145.7	133.7	117.0	109.1	111.5	101.1
90°	9.5	16.4	27.9	18.2	15.1	18.2	27.9	16.4	9.5	16.2	25.0
92.5°	12.2	21.7	38.7	22.9	18.5	22.9	38.7	21.7	12.2	20.9	39.8
95°	18.4	26.4	48.7	24.9	21.2	24.9	48.7	26.4	18.4	27.7	55.2
97.5°	27.8	32.5	54.8	26.3	24.5	26.3	54.8	32.5	27.8	33.7	63.3
100°	36.5	36.5	98.4	29.6	27.2	29.6	98.4	36.5	36.5	41.9	98.2
102.5°	54.7	70.9	226.2	56.0	31.9	56.0	226.2	70.9	54.7	77.5	207.7
105°	98.3	159.6	396.1	137.2	54.9	137.2	396.1	159.6	98.3	160.8	369.5
107.5°	185.0	295.9	509.6	266.2	120.0	266.2	509.6	295.9	185.0	283.7	487.8
110°	295.1	412.8	555.9	362.9	236.9	362.9	555.9	412.8	295.1	389.1	511.4



TEST NUMBER:

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	383.7	459.8	543.2	401.9	325.5	401.9	543.2	459.8	383.7	429.4	489.9
115°	417.5	453.1	485.4	400.5	360.5	400.5	485.4	453.1	417.5	419.3	437.5
117.5°	403.4	414.8	419.6	376.3	362.5	376.3	419.6	414.8	403.4	377.8	371.7
120°	364.4	359.7	354.6	340.7	342.3	340.7	354.6	359.7	364.4	330.1	310.5
122.5°	316.2	306.1	300.2	305.3	314.8	305.3	300.2	306.1	316.2	281.9	267.0
125°	268.5	258.4	262.7	274.4	284.7	274.4	262.7	258.4	268.5	240.4	236.3
127.5°	229.0	224.3	235.2	248.2	257.2	248.2	235.2	224.3	229.0	210.9	214.1
130°	200.9	201.5	215.7	227.5	233.0	227.5	215.7	201.5	200.9	192.2	200.8
132.5°	183.6	188.2	201.7	212.2	215.7	212.2	201.7	188.2	183.6	181.7	192.3
135°	173.0	179.4	192.4	198.6	200.9	198.6	192.4	179.4	173.0	174.4	183.6
137.5°	167.0	173.5	183.0	188.7	188.1	188.7	183.0	173.5	167.0	169.9	177.1
140°	163.8	170.3	174.3	180.6	180.9	180.6	174.3	170.3	163.8	165.2	171.2
142.5°	160.6	166.4	168.4	173.3	172.8	173.3	168.4	166.4	160.6	161.9	166.0
145°	159.4	163.9	161.8	167.3	166.8	167.3	161.8	163.9	159.4	159.2	162.1
147.5°	156.0	159.2	157.2	162.1	161.5	162.1	157.2	159.2	156.0	156.0	157.4
150°	152.7	155.4	152.0	157.4	158.3	157.4	152.0	155.4	152.7	152.0	153.5
152.5°	148.1	150.8	148.1	154.3	154.4	154.3	148.1	150.8	148.1	147.4	148.9
155°	145.0	146.4	145.0	151.2	152.0	151.2	145.0	146.4	145.0	144.2	145.8
157.5°	143.3	144.7	144.1	149.6	150.4	149.6	144.1	144.7	143.3	143.3	144.1
160°	143.1	144.4	144.6	149.4	150.2	149.4	144.6	144.4	143.1	143.0	143.8
162.5°	143.3	143.3	144.3	149.1	150.7	149.1	144.3	143.3	143.3	143.3	144.0
165°	143.7	144.4	144.7	148.9	151.2	148.9	144.7	144.4	143.7	143.6	143.6
167.5°	144.7	144.0	145.6	150.0	152.3	150.0	145.6	144.0	144.7	144.5	144.5
170°	144.1	144.9	145.8	150.3	152.5	150.3	145.8	144.9	144.1	144.8	144.7
172.5°	146.5	146.5	147.6	151.2	154.2	151.2	147.6	146.5	146.5	146.4	147.1
175°	148.1	148.2	149.2	152.1	155.1	152.1	149.2	148.2	148.1	147.3	147.3
177.5°	147.4	149.0	150.5	153.6	157.2	153.6	150.5	149.0	147.4	147.3	147.3
180°	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0



TEST NUMBER:

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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	42456.6	42456.6	42456.6	42456.6	42456.6	42456.6
2.5°	41223.4	41196.4	41223.4	41511.6	41886.6	42432.0
5°	40265.7	40116.0	40265.7	40585.0	41273.6	42311.8
7.5°	39150.3	39063.6	39150.3	39684.5	40554.7	42024.3
10°	37976.0	37779.4	37976.0	38579.5	39605.7	41585.7
12.5°	36528.7	36268.4	36528.7	37152.1	38446.6	40885.9
15°	34688.0	34459.6	34688.0	35379.9	36881.4	39850.9
17.5°	32712.9	32505.9	32712.9	33313.9	34967.5	38392.4
20°	30232.1	30069.7	30232.1	31082.4	32704.9	36512.8
22.5°	27629.6	27477.5	27629.6	28385.1	30073.7	34156.2
25°	24567.7	24484.9	24567.7	25411.6	26938.5	31400.0
27.5°	21259.0	21118.1	21259.0	22141.9	23701.5	28158.2
30°	17878.6	17645.4	17878.6	18668.4	20064.8	24557.3
32.5°	14572.3	14404.3	14572.3	15135.2	16594.5	20525.7
35°	11376.7	11208.7	11376.7	11885.4	13318.4	16806.2
37.5°	8864.9	8567.9	8864.9	9191.3	10354.4	13189.4
40°	6723.3	6675.5	6723.3	7134.1	7878.5	10261.3
42.5°	5473.4	5343.6	5473.4	5650.1	6207.4	7775.0
45°	4491.0	4440.0	4491.0	4624.7	4998.9	6077.6
47.5°	3862.0	3884.3	3862.0	3948.0	4228.2	4949.5
50°	3393.1	3406.6	3393.1	3433.7	3620.8	4157.4
52.5°	3047.6	3035.6	3047.6	3051.6	3167.8	3571.4
55°	2741.9	2726.7	2741.9	2733.1	2819.1	3077.8
57.5°	2474.4	2485.5	2474.4	2462.4	2508.6	2702.9
60°	2235.5	2245.9	2235.5	2226.8	2257.0	2370.9
62.5°	2034.1	2040.5	2034.1	2033.3	2027.7	2115.3
65°	1854.2	1861.3	1854.2	1844.6	1835.9	1876.5
67.5°	1682.2	1682.2	1682.2	1665.5	1652.0	1691.8
70°	1520.6	1519.8	1520.6	1493.5	1483.2	1495.1
72.5°	1326.3	1345.5	1326.3	1306.4	1305.6	1307.2
75°	1137.7	1160.0	1137.7	1124.9	1110.6	1122.5
77.5°	946.6	980.8	946.6	936.2	929.1	921.1
80°	750.7	788.2	750.7	733.2	722.9	736.4
82.5°	554.9	582.8	554.9	533.4	532.6	539.0
85°	330.4	375.0	330.4	311.3	318.5	311.3
87.5°	105.9	135.3	105.9	101.1	111.5	109.1
90°	14.9	9.5	14.9	25.0	16.2	9.5
92.5°	22.3	13.6	22.3	39.8	20.9	12.2
95°	25.6	15.6	25.6	55.2	27.7	18.4
97.5°	28.3	20.4	28.3	63.3	33.7	27.8
100°	33.0	26.4	33.0	98.2	41.9	36.5
102.5°	69.3	43.9	69.3	207.7	77.5	54.7
105°	145.2	74.8	145.2	369.5	160.8	98.3
107.5°	259.4	128.5	259.4	487.8	283.7	185.0
110°	344.0	238.7	344.0	511.4	389.1	295.1



TEST NUMBER:

CATALOG NUMBER: EHBR1-48-UNV-TASM-L840-UPL12

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	369.5	322.0	369.5	489.9	429.4	383.7
115°	355.4	338.8	355.4	437.5	419.3	417.5
117.5°	324.5	327.3	324.5	371.7	377.8	403.4
120°	288.9	303.2	288.9	310.5	330.1	364.4
122.5°	256.8	272.9	256.8	267.0	281.9	316.2
125°	228.6	245.5	228.6	236.3	240.4	268.5
127.5°	209.1	220.7	209.1	214.1	210.9	229.0
130°	194.5	203.9	194.5	200.8	192.2	200.9
132.5°	184.5	190.6	184.5	192.3	181.7	183.6
135°	175.9	180.5	175.9	183.6	174.4	173.0
137.5°	168.7	172.6	168.7	177.1	169.9	167.0
140°	162.9	166.1	162.9	171.2	165.2	163.8
142.5°	156.3	159.0	156.3	166.0	161.9	160.6
145°	152.5	154.5	152.5	162.1	159.2	159.4
147.5°	149.3	150.7	149.3	157.4	156.0	156.0
150°	146.2	147.6	146.2	153.5	152.0	152.7
152.5°	142.3	144.5	142.3	148.9	147.4	148.1
155°	140.6	142.7	140.6	145.8	144.2	145.0
157.5°	140.1	142.4	140.1	144.1	143.3	143.3
160°	140.5	142.0	140.5	143.8	143.0	143.1
162.5°	140.1	141.6	140.1	144.0	143.3	143.3
165°	141.0	141.8	141.0	143.6	143.6	143.7
167.5°	141.2	141.8	141.2	144.5	144.5	144.7
170°	142.0	142.8	142.0	144.7	144.8	144.1
172.5°	143.6	144.4	143.6	147.1	146.4	146.5
175°	144.5	145.3	144.5	147.3	147.3	148.1
177.5°	146.0	146.8	146.0	147.3	147.3	147.4
180°	149.0	149.0	149.0	149.0	149.0	149.0



TEST NUMBER: CATALOG  
 CATALOG NUMBER: EHBR1-48-UNV-TASM-L840-UPL12

**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	19.37	20.53	19.78	20.90	21.28	18.68	19.85	19.10	20.22	20.60
	3H	20.92	21.95	21.34	22.34	22.77	20.53	21.57	20.96	21.96	22.39
	4H	21.55	22.52	22.00	22.93	23.38	21.32	22.29	21.77	22.69	23.14
	6H	22.04	22.93	22.50	23.35	23.81	21.96	22.85	22.42	23.28	23.74
	8H	22.19	23.03	22.67	23.47	23.94	22.19	23.03	22.66	23.47	23.94
	12H	22.26	23.07	22.74	23.50	24.00	22.31	23.12	22.79	23.55	24.05
4H	2H	19.78	20.75	20.24	21.16	21.61	19.26	20.23	19.71	20.64	21.09
	3H	21.58	22.38	22.05	22.84	23.31	21.32	22.12	21.78	22.58	23.05
	4H	22.36	23.08	22.84	23.55	24.05	22.23	22.95	22.71	23.42	23.93
	6H	22.98	23.59	23.49	24.09	24.62	23.01	23.62	23.51	24.12	24.65
	8H	23.17	23.75	23.69	24.25	24.78	23.28	23.85	23.79	24.35	24.88
	12H	23.28	23.79	23.81	24.32	24.85	23.45	23.95	23.98	24.48	25.02
8H	4H	22.61	23.19	23.13	23.68	24.22	22.51	23.09	23.03	23.59	24.12
	6H	23.35	23.82	23.90	24.37	24.91	23.42	23.89	23.97	24.43	24.97
	8H	23.62	24.04	24.19	24.60	25.16	23.77	24.19	24.34	24.75	25.30
	12H	23.80	24.16	24.36	24.71	25.34	24.02	24.39	24.58	24.93	25.56
12H	4H	22.62	23.13	23.15	23.66	24.20	22.53	23.03	23.06	23.57	24.10
	6H	23.40	23.81	23.96	24.38	24.93	23.46	23.88	24.03	24.44	25.00
	8H	23.72	24.08	24.28	24.62	25.25	23.87	24.24	24.43	24.78	25.41