

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: CORELITE

Report Number: P936826

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936826
REPORT IS A COMBINATION OF REPORTS P933463 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

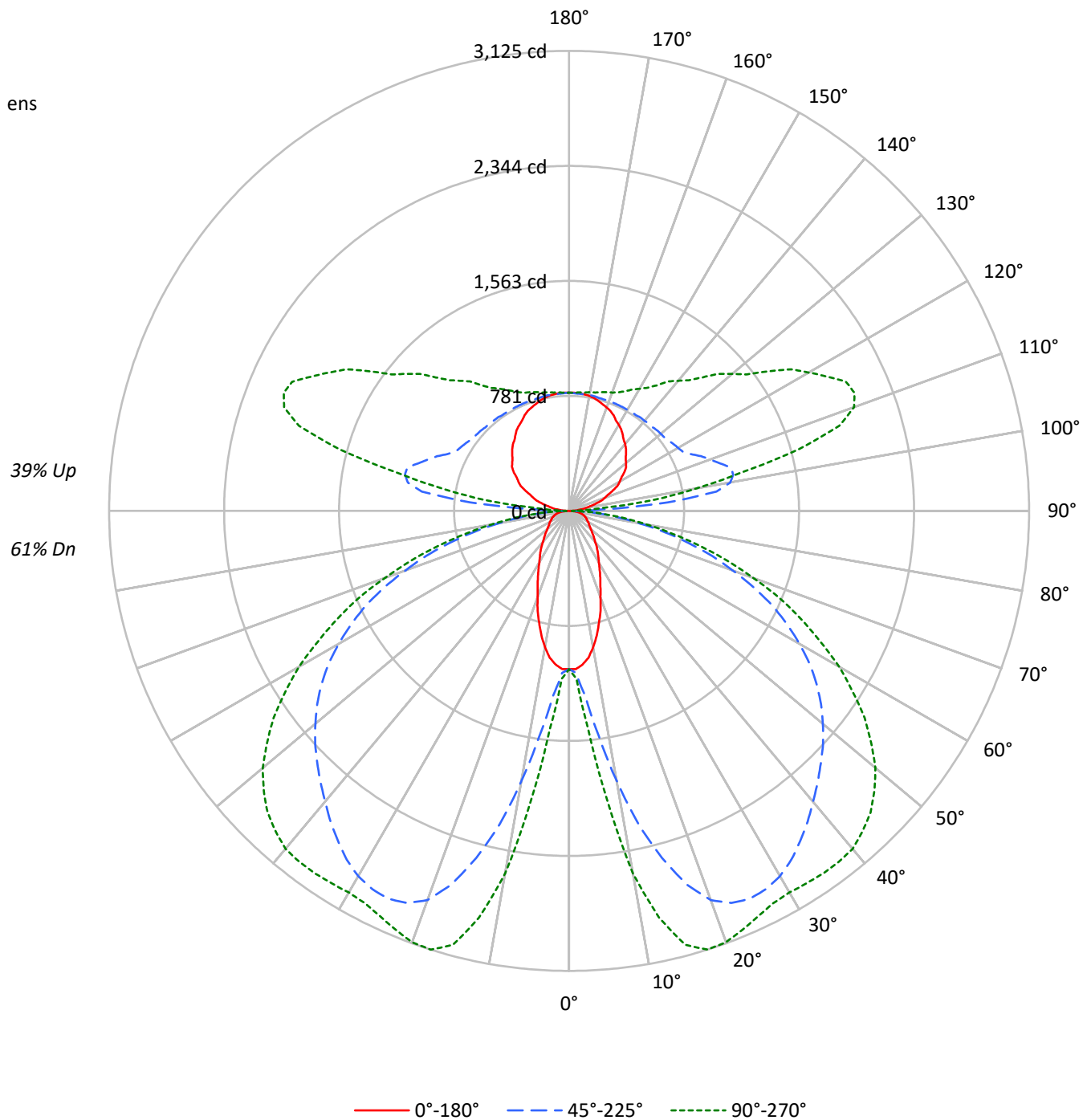
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13527.0 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 135.6
Input Voltage (V): NR
Input Current (A_{in}): 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: P936826
CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P936826

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3325	3325	3325
5°	3249	3844	4469
10°	2948	5605	7409
15°	2507	7324	8946
20°	2042	8489	9118
25°	1704	8886	8933
30°	1437	8944	8916
35°	1271	8798	9146
40°	1109	8607	9385
45°	1005	8469	9421
50°	922	8344	9265
55°	884	8161	8855
60°	906	7806	8206
65°	944	7265	7315
70°	1009	6340	6180
75°	1122	5174	4823
80°	1235	3593	3250
85°	1118	1910	1663

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9421 cd/sqm



TEST NUMBER: P936826

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.0	1.0
10°-20°	616.3	4.6
20°-30°	1077.9	8.0
30°-40°	1387.6	10.3
40°-50°	1549.9	11.5
50°-60°	1484.5	11.0
60°-70°	1176.4	8.7
70°-80°	691.8	5.1
80°-90°	195.2	1.4
90°-100°	391.6	2.9
100°-110°	1029.6	7.6
110°-120°	1067.6	7.9
120°-130°	856.3	6.3
130°-140°	671.9	5.0
140°-150°	515.7	3.8
150°-160°	371.4	2.7
160°-170°	227.2	1.7
170°-180°	76.8	0.6
0°-30°	1833.3	13.6
0°-40°	3220.9	23.8
0°-60°	6255.3	46.2
0°-90°	8318.8	61.5
90°-120°	2488.8	18.4
90°-150°	4532.7	33.5
90°-180°	5208.0	38.5
0°-180°	13527.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1075	1075	1075	1075	1075	
5°	1047	1123	1265	1431	1483	97
15°	785	1448	2440	2959	3052	218
25°	501	1642	2907	3035	3038	231
35°	339	1569	2738	2893	3007	212
45°	232	1251	2420	2772	2896	179
55°	166	795	2053	2385	2451	151
65°	131	422	1524	1714	1739	130
75°	97	259	836	919	923	101
85°	34	80	207	228	232	37
90°	5	15	41	20	20	7
95°	52	203	674	348	237	57
105°	186	281	1138	1728	1612	197
115°	330	400	912	1819	2076	325
125°	458	514	829	1401	1653	407
135°	546	601	803	1131	1283	423
145°	634	674	793	965	1041	397
155°	716	736	793	871	896	329
165°	773	783	793	824	835	218
175°	803	803	798	809	809	76
180°	803	803	803	803	803	



TEST NUMBER: P936826

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0	1075.0
2.5°	1075.0	1075.0	1081.8	1085.3	1092.2	1095.7	1102.6	1109.5	1130.2	1133.7	1140.6
5°	1047.3	1061.1	1106.1	1123.4	1171.8	1237.4	1265.1	1310.0	1403.3	1430.9	1448.2
7.5°	1005.8	1036.9	1147.5	1175.2	1296.1	1468.9	1541.6	1638.3	1787.0	1859.5	1918.3
10°	940.1	1005.8	1202.8	1268.5	1465.5	1728.2	1863.0	1997.8	2222.5	2322.7	2360.7
12.5°	867.6	974.7	1261.6	1351.5	1634.9	2018.5	2181.0	2329.6	2585.4	2720.2	2740.9
15°	784.6	929.8	1316.9	1448.2	1814.6	2260.5	2440.2	2623.4	2861.9	2958.6	2982.9
17.5°	712.0	895.2	1368.7	1507.0	1952.8	2478.2	2661.4	2813.5	3007.0	3072.7	3090.1
20°	622.1	839.9	1403.3	1583.0	2098.0	2637.2	2813.5	2931.0	3062.3	3103.8	3110.7
22.5°	556.4	781.2	1424.0	1610.6	2194.8	2734.0	2882.6	2976.0	3065.8	3079.7	3083.1
25°	501.2	715.5	1420.5	1641.8	2277.8	2792.8	2906.8	2976.0	3027.8	3034.7	3034.7
27.5°	449.4	642.9	1406.8	1648.7	2340.0	2806.6	2896.5	2944.9	2969.0	2982.9	2982.9
30°	404.4	573.8	1372.1	1634.9	2367.7	2792.8	2865.3	2889.6	2913.7	2934.5	2944.9
32.5°	369.8	508.0	1320.3	1607.2	2371.1	2758.2	2810.0	2823.9	2858.4	2906.8	2924.1
35°	338.7	442.4	1261.6	1569.2	2350.3	2702.9	2737.5	2751.3	2820.4	2893.0	2917.2
37.5°	307.7	394.1	1185.5	1503.6	2319.3	2637.2	2661.4	2685.6	2792.8	2879.2	2906.8
40°	276.5	352.6	1095.7	1430.9	2270.9	2557.8	2578.4	2616.5	2758.2	2858.4	2886.1
42.5°	252.3	318.0	998.9	1354.9	2208.6	2467.9	2499.0	2554.3	2716.7	2823.9	2855.0
45°	231.6	283.4	895.2	1251.2	2129.2	2374.5	2419.5	2495.5	2668.3	2772.0	2799.7
47.5°	210.9	259.3	788.1	1144.1	2042.7	2281.2	2340.0	2426.3	2602.7	2702.9	2727.1
50°	193.6	235.0	680.9	1030.0	1949.4	2181.0	2250.1	2340.0	2519.7	2613.0	2644.2
52.5°	179.7	214.3	580.7	916.0	1842.3	2077.3	2156.8	2250.1	2419.5	2509.4	2530.1
55°	165.9	197.0	494.3	794.9	1731.7	1966.7	2053.1	2142.9	2308.9	2384.9	2398.7
57.5°	159.0	183.2	421.7	680.9	1614.1	1842.3	1939.1	2022.0	2177.6	2236.2	2250.1
60°	148.6	172.8	366.3	584.1	1486.2	1724.7	1807.7	1890.7	2022.0	2070.4	2080.8
62.5°	138.2	165.9	324.9	490.8	1354.9	1586.5	1669.4	1745.5	1856.1	1890.7	1904.4
65°	131.3	159.0	293.8	421.7	1220.1	1441.3	1524.2	1590.0	1679.8	1714.3	1721.3
67.5°	124.4	152.1	269.6	362.9	1085.3	1296.1	1358.4	1420.5	1489.7	1524.2	1527.7
70°	114.1	145.2	248.9	321.4	947.0	1130.2	1182.1	1247.8	1303.1	1320.3	1330.7
72.5°	107.2	134.8	235.0	290.3	805.3	971.3	1019.7	1057.7	1106.1	1123.4	1123.4
75°	96.8	121.0	221.2	259.3	660.1	794.9	836.5	874.5	912.5	919.4	909.0
77.5°	86.4	107.2	190.1	217.7	515.0	629.1	663.6	684.4	715.5	722.4	725.9
80°	72.6	93.3	148.6	169.3	373.3	463.1	487.4	504.6	532.3	532.3	539.2
82.5°	55.3	72.6	107.2	121.0	252.3	318.0	338.7	349.1	366.3	366.3	366.3
85°	34.5	44.9	69.2	79.5	152.1	193.6	207.4	210.9	224.6	228.1	228.1
87.5°	17.3	24.2	44.9	48.4	79.5	100.2	100.2	107.2	107.2	103.7	100.2
90°	5.4	9.7	14.0	15.1	23.7	35.2	41.0	36.5	27.3	20.5	20.5
92.5°	21.5	58.2	94.9	104.0	146.2	202.6	230.7	202.2	145.2	102.5	98.4
95°	51.8	118.9	186.0	202.7	360.0	569.7	674.5	601.9	456.7	347.8	335.4
97.5°	89.5	148.7	207.9	222.7	484.9	834.5	1009.4	963.5	871.7	802.9	779.4
100°	118.6	172.3	225.9	239.4	530.4	918.3	1112.4	1115.7	1122.4	1127.5	1099.5
102.5°	143.4	193.5	243.6	256.1	551.2	944.8	1141.5	1199.9	1316.9	1404.6	1380.6
105°	185.5	227.9	270.2	280.9	566.6	947.7	1138.3	1269.3	1531.5	1728.1	1715.2
107.5°	228.6	268.2	307.7	317.6	569.6	905.6	1073.6	1256.4	1622.2	1896.4	1899.6
110°	257.8	293.4	329.2	338.1	565.3	868.2	1019.7	1224.1	1632.9	1939.5	1952.9



TEST NUMBER: P936826

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	286.3	320.3	354.3	362.9	565.4	835.5	970.6	1179.8	1598.2	1912.0	1932.6
115°	329.5	360.8	392.2	400.1	570.7	798.1	911.8	1113.3	1516.4	1818.7	1847.3
117.5°	372.0	400.5	429.0	436.2	581.2	774.6	871.3	1053.2	1417.0	1689.8	1721.5
120°	396.9	423.7	450.5	457.2	589.8	766.8	855.2	1021.4	1353.7	1603.1	1633.8
122.5°	421.1	448.2	475.3	482.1	602.3	762.6	842.7	992.4	1291.7	1516.2	1546.6
125°	458.3	483.0	507.7	513.9	619.1	759.2	829.3	956.4	1210.6	1401.4	1429.4
127.5°	488.5	513.5	538.4	544.6	635.7	757.2	818.0	927.1	1145.4	1309.2	1332.8
130°	504.7	531.6	558.4	565.1	647.9	758.4	813.7	910.8	1105.2	1250.9	1272.7
132.5°	521.4	548.2	575.1	581.8	657.9	759.2	809.9	896.9	1070.9	1201.3	1220.8
135°	546.2	570.7	595.1	601.2	668.6	758.5	803.4	876.3	1022.0	1131.3	1148.1
137.5°	571.5	595.8	620.0	626.0	684.8	763.2	802.4	863.9	987.1	1079.5	1093.3
140°	592.5	614.9	637.1	642.7	694.7	763.9	798.5	851.7	958.2	1038.0	1050.9
142.5°	608.8	629.3	650.0	655.2	702.9	766.7	798.5	845.3	938.7	1008.9	1019.9
145°	633.5	651.5	669.5	674.0	713.8	766.7	793.2	831.4	907.9	965.2	973.5
147.5°	658.4	675.8	693.4	697.7	729.5	772.0	793.2	823.3	883.5	928.5	935.5
150°	674.5	690.3	706.2	710.1	737.8	774.7	793.2	818.6	869.3	907.4	913.1
152.5°	691.3	703.2	715.2	718.2	743.2	776.5	793.2	814.9	858.3	890.8	895.1
155°	716.0	724.9	733.8	736.0	755.1	780.5	793.2	810.5	844.9	870.8	873.6
157.5°	734.4	743.1	751.6	753.8	767.0	784.5	793.2	806.6	833.4	853.5	855.6
160°	746.8	753.5	760.2	761.9	772.4	786.2	793.2	804.7	827.6	844.9	846.0
162.5°	759.2	764.3	769.3	770.5	778.1	788.1	793.2	802.9	822.2	836.8	837.9
165°	772.7	777.2	781.8	782.9	786.3	790.9	793.2	800.2	814.0	824.4	825.6
167.5°	785.1	787.2	789.4	789.9	792.8	796.6	798.5	803.1	812.2	819.0	819.5
170°	793.2	795.3	797.5	798.0	798.2	798.4	798.5	803.1	812.2	819.0	819.0
172.5°	797.5	797.9	798.4	798.5	798.5	798.5	798.5	802.1	809.3	814.7	814.3
175°	803.4	803.4	803.4	803.4	801.7	799.6	798.5	800.8	805.4	808.8	808.8
177.5°	803.4	803.4	803.4	803.4	802.2	800.5	799.7	801.5	805.1	807.8	807.2
180°	803.4	803.4	803.4	803.4	803.4	803.4	803.4	803.4	803.4	803.4	803.4



TEST NUMBER: P936826

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1075.0	1075.0
2.5°	1147.5	1140.6
5°	1475.9	1482.8
7.5°	1987.5	1984.0
10°	2471.3	2502.4
12.5°	2823.9	2830.8
15°	3038.2	3052.0
17.5°	3121.1	3124.6
20°	3124.6	3117.7
22.5°	3086.6	3079.7
25°	3041.7	3038.2
27.5°	3000.1	3003.6
30°	2982.9	2993.3
32.5°	2982.9	3000.1
35°	2989.8	3007.0
37.5°	2986.3	3007.0
40°	2972.5	2996.7
42.5°	2934.5	2951.7
45°	2875.7	2896.5
47.5°	2799.7	2813.5
50°	2702.9	2716.7
52.5°	2581.9	2585.4
55°	2436.7	2450.6
57.5°	2281.2	2284.6
60°	2108.4	2118.8
62.5°	1925.2	1925.2
65°	1731.7	1738.6
67.5°	1531.2	1548.5
70°	1327.2	1330.7
72.5°	1126.8	1126.8
75°	919.4	922.9
77.5°	722.4	722.4
80°	535.8	539.2
82.5°	369.8	376.7
85°	231.6	231.6
87.5°	107.2	96.8
90°	20.5	20.5
92.5°	82.1	65.8
95°	286.0	236.7
97.5°	685.4	591.5
100°	987.6	875.7
102.5°	1284.8	1188.9
105°	1663.8	1612.2
107.5°	1911.9	1924.4
110°	2006.6	2060.3



TEST NUMBER: P936826

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2015.1	2097.5
115°	1961.6	2076.0
117.5°	1848.3	1975.1
120°	1757.1	1880.2
122.5°	1668.1	1789.6
125°	1541.2	1653.2
127.5°	1427.2	1521.6
130°	1360.0	1447.2
132.5°	1299.0	1377.1
135°	1215.4	1282.8
137.5°	1148.4	1203.5
140°	1102.3	1153.9
142.5°	1064.3	1108.6
145°	1007.1	1040.7
147.5°	963.2	991.1
150°	935.6	958.2
152.5°	912.1	929.1
155°	884.9	896.2
157.5°	863.4	871.3
160°	850.7	855.2
162.5°	842.2	846.6
165°	830.2	834.7
167.5°	821.5	823.4
170°	819.0	819.0
172.5°	812.6	811.0
175°	808.8	808.8
177.5°	805.3	803.4
180°	803.4	803.4



TEST NUMBER: P936826
 CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3000K

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	6.17	7.19	7.01	8.06	9.16	19.36	20.38	20.20	21.26	22.35
	3H	6.89	7.81	7.74	8.69	9.81	21.22	22.14	22.07	23.02	24.14
	4H	7.19	8.06	8.06	8.95	10.08	21.87	22.75	22.74	23.63	24.76
	6H	7.45	8.26	8.33	9.15	10.30	22.32	23.12	23.20	24.02	25.16
	8H	7.52	8.29	8.41	9.21	10.35	22.44	23.21	23.34	24.13	25.27
	12H	7.55	8.28	8.44	9.19	10.36	22.52	23.25	23.42	24.16	25.33
4H	2H	13.41	14.28	14.29	15.17	16.30	19.65	20.53	20.53	21.41	22.54
	3H	14.99	15.73	15.88	16.64	17.79	21.72	22.45	22.61	23.37	24.52
	4H	15.09	15.76	15.99	16.68	17.85	22.50	23.17	23.40	24.08	25.25
	6H	15.11	15.69	16.03	16.63	17.81	23.05	23.63	23.96	24.57	25.74
	8H	15.10	15.64	16.01	16.57	17.76	23.22	23.76	24.14	24.69	25.88
	12H	15.06	15.55	16.00	16.50	17.69	23.32	23.81	24.26	24.77	25.96
8H	4H	16.56	17.10	17.47	18.03	19.22	22.57	23.11	23.49	24.05	25.23
	6H	16.81	17.26	17.75	18.23	19.42	23.21	23.66	24.16	24.64	25.82
	8H	16.83	17.23	17.78	18.19	19.39	23.44	23.84	24.39	24.80	26.00
	12H	16.80	17.15	17.76	18.11	19.37	23.59	23.94	24.55	24.90	26.16
12H	4H	16.71	17.20	17.65	18.15	19.34	22.53	23.02	23.47	23.97	25.17
	6H	17.07	17.47	18.02	18.43	19.64	23.20	23.60	24.15	24.56	25.77
	8H	17.15	17.50	18.11	18.46	19.71	23.44	23.79	24.40	24.75	26.00