

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: P936805

Luminaire Tested: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936805
REPORT IS A COMBINATION OF REPORTS P933462 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

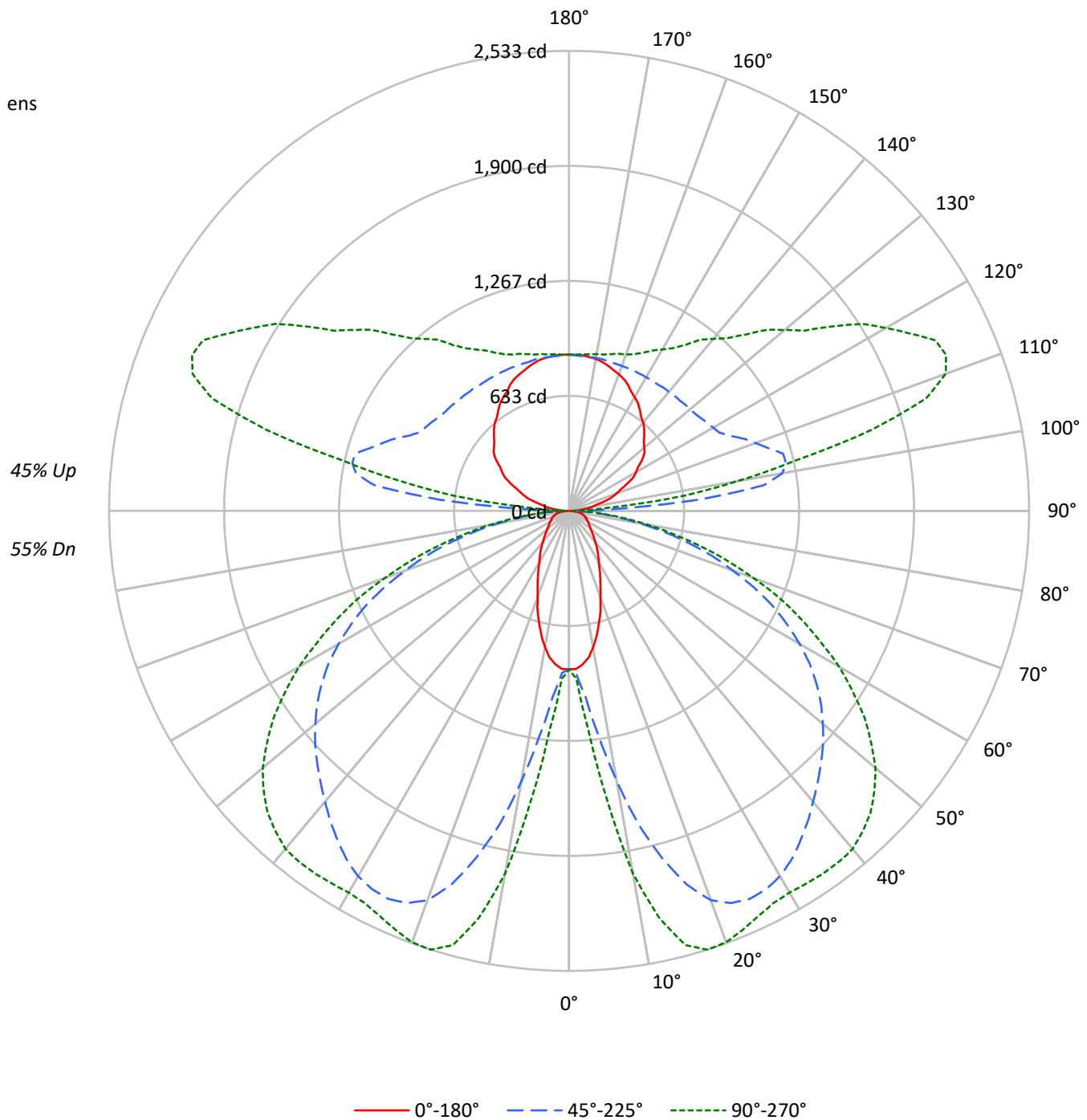
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12323.2 lumens
Efficiency: N/A
Efficacy: 112.8 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: General Diffuse

Input Watts (W): 109.2
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: P936805
CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P936805

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-12

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	50	30	10	0
RCR																					
0	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	60	60	60	55
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	50	50	50	45
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	41	41	41	37
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	34	34	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	29	29	29	25
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	25	25	25	21
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	21	21	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	19	19	19	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	16	16	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	15	15	15	12
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	13	13	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2695	2695	2695
5°	2634	3116	3623
10°	2390	4544	6007
15°	2032	5938	7253
20°	1655	6882	7392
25°	1381	7204	7242
30°	1165	7251	7228
35°	1031	7133	7415
40°	899	6978	7608
45°	814	6866	7638
50°	748	6765	7512
55°	717	6616	7178
60°	735	6329	6653
65°	766	5890	5930
70°	818	5140	5010
75°	910	4195	3909
80°	1000	2913	2634
85°	907	1548	1348

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7638 cd/sqm



TEST NUMBER: P936805

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.7	0.9
10°-20°	499.6	4.1
20°-30°	873.9	7.1
30°-40°	1125.0	9.1
40°-50°	1256.5	10.2
50°-60°	1203.5	9.8
60°-70°	953.8	7.7
70°-80°	560.8	4.6
80°-90°	159.1	1.3
90°-100°	419.4	3.4
100°-110°	1102.8	8.9
110°-120°	1143.4	9.3
120°-130°	917.2	7.4
130°-140°	719.7	5.8
140°-150°	552.4	4.5
150°-160°	397.8	3.2
160°-170°	243.4	2.0
170°-180°	82.2	0.7
0°-30°	1486.2	12.1
0°-40°	2611.2	21.2
0°-60°	5071.2	41.2
0°-90°	6744.9	54.7
90°-120°	2665.6	21.6
90°-150°	4854.8	39.4
90°-180°	5578.0	45.3
0°-180°	12323.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	871	871	871	871	871	
5°	849	911	1026	1160	1202	78
15°	636	1174	1978	2399	2474	177
25°	406	1331	2357	2460	2463	187
35°	275	1272	2219	2345	2438	171
45°	188	1014	1962	2247	2348	145
55°	134	644	1664	1934	1987	123
65°	106	342	1236	1390	1410	106
75°	78	210	678	745	748	82
85°	28	64	168	185	188	30
90°	6	16	44	22	22	7
95°	56	217	722	372	254	62
105°	199	301	1219	1851	1727	211
115°	353	428	977	1948	2224	348
125°	491	550	888	1501	1771	436
135°	585	644	860	1212	1374	453
145°	679	722	850	1034	1115	425
155°	767	788	850	933	960	352
165°	828	838	850	883	894	234
175°	860	860	855	866	866	82
180°	860	860	860	860	860	



TEST NUMBER: P936805

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4
2.5°	871.4	871.4	877.0	879.8	885.4	888.2	893.8	899.4	916.3	919.1	924.7
5°	849.0	860.2	896.6	910.6	949.9	1003.1	1025.5	1062.1	1137.7	1160.1	1174.1
7.5°	815.4	840.6	930.3	952.7	1050.8	1190.9	1249.8	1328.2	1448.7	1507.6	1555.2
10°	762.1	815.4	975.1	1028.3	1188.1	1401.1	1510.4	1619.6	1801.8	1883.0	1913.9
12.5°	703.3	790.2	1022.7	1095.7	1325.4	1636.5	1768.2	1888.6	2096.0	2205.3	2222.1
15°	636.1	753.7	1067.7	1174.1	1471.1	1832.6	1978.3	2126.8	2320.1	2398.6	2418.2
17.5°	577.2	725.7	1109.7	1221.8	1583.2	2009.1	2157.6	2280.9	2437.8	2491.1	2505.1
20°	504.4	680.9	1137.7	1283.4	1700.9	2138.0	2280.9	2376.2	2482.7	2516.3	2521.9
22.5°	451.1	633.3	1154.5	1305.8	1779.4	2216.5	2337.0	2412.6	2485.5	2496.7	2499.5
25°	406.3	580.0	1151.7	1331.0	1846.6	2264.1	2356.6	2412.6	2454.6	2460.2	2460.2
27.5°	364.3	521.2	1140.5	1336.6	1897.0	2275.3	2348.2	2387.4	2407.0	2418.2	2418.2
30°	327.8	465.1	1112.5	1325.4	1919.5	2264.1	2323.0	2342.6	2362.2	2379.0	2387.4
32.5°	299.8	411.9	1070.5	1303.0	1922.3	2236.1	2278.1	2289.3	2317.3	2356.6	2370.6
35°	274.6	358.7	1022.7	1272.2	1905.5	2191.3	2219.3	2230.5	2286.5	2345.4	2365.0
37.5°	249.4	319.4	961.1	1219.0	1880.2	2138.0	2157.6	2177.2	2264.1	2334.2	2356.6
40°	224.2	285.8	888.2	1160.1	1841.0	2073.6	2090.4	2121.2	2236.1	2317.3	2339.8
42.5°	204.5	257.8	809.8	1098.5	1790.6	2000.7	2025.9	2070.8	2202.5	2289.3	2314.5
45°	187.7	229.8	725.7	1014.3	1726.1	1925.1	1961.5	2023.1	2163.2	2247.3	2269.7
47.5°	170.9	210.2	638.9	927.5	1656.1	1849.4	1897.0	1967.1	2110.0	2191.3	2210.9
50°	156.9	190.5	552.0	835.0	1580.4	1768.2	1824.2	1897.0	2042.8	2118.4	2143.6
52.5°	145.7	173.7	470.7	742.5	1493.6	1684.1	1748.5	1824.2	1961.5	2034.3	2051.2
55°	134.5	159.7	400.7	644.5	1403.9	1594.4	1664.5	1737.3	1871.8	1933.5	1944.7
57.5°	128.9	148.5	341.8	552.0	1308.6	1493.6	1572.0	1639.3	1765.4	1813.0	1824.2
60°	120.5	140.1	297.0	473.5	1205.0	1398.3	1465.5	1532.8	1639.3	1678.5	1686.9
62.5°	112.1	134.5	263.4	397.9	1098.5	1286.2	1353.5	1415.1	1504.8	1532.8	1544.0
65°	106.5	128.9	238.2	341.8	989.1	1168.5	1235.8	1289.0	1361.9	1389.9	1395.5
67.5°	100.9	123.3	218.6	294.2	879.8	1050.8	1101.3	1151.7	1207.8	1235.8	1238.6
70°	92.5	117.7	201.7	260.6	767.7	916.3	958.3	1011.5	1056.4	1070.5	1078.9
72.5°	86.9	109.3	190.5	235.4	652.9	787.4	826.6	857.4	896.6	910.6	910.6
75°	78.5	98.1	179.3	210.2	535.2	644.5	678.1	708.9	739.7	745.3	736.9
77.5°	70.0	86.9	154.1	176.5	417.5	510.0	538.0	554.8	580.0	585.6	588.4
80°	58.8	75.7	120.5	137.3	302.6	375.5	395.1	409.1	431.5	431.5	437.1
82.5°	44.8	58.8	86.9	98.1	204.5	257.8	274.6	283.0	297.0	297.0	297.0
85°	28.0	36.4	56.0	64.4	123.3	156.9	168.1	170.9	182.1	184.9	184.9
87.5°	14.0	19.6	36.4	39.2	64.4	81.3	81.3	86.9	86.9	84.1	81.3
90°	5.8	10.4	15.0	16.2	25.4	37.7	43.9	39.0	29.2	21.9	21.9
92.5°	23.1	62.3	101.6	111.4	156.6	217.0	247.1	216.6	155.5	109.7	105.4
95°	55.5	127.3	199.2	217.2	385.6	610.2	722.4	644.6	489.1	372.5	359.2
97.5°	95.8	159.2	222.7	238.5	519.4	893.8	1081.1	1032.0	933.6	859.9	834.8
100°	127.0	184.6	242.0	256.4	568.1	983.6	1191.4	1195.0	1202.2	1207.6	1177.6
102.5°	153.6	207.3	260.9	274.3	590.4	1011.9	1222.6	1285.2	1410.4	1504.4	1478.7
105°	198.7	244.1	289.4	300.8	606.9	1015.1	1219.2	1359.5	1640.3	1850.9	1837.1
107.5°	244.9	287.2	329.6	340.2	610.1	970.0	1149.8	1345.7	1737.4	2031.2	2034.5
110°	276.1	314.3	352.6	362.1	605.4	929.9	1092.1	1311.1	1748.9	2077.3	2091.7



TEST NUMBER: P936805

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	306.6	343.1	379.5	388.6	605.6	894.9	1039.5	1263.6	1711.7	2047.9	2069.9
115°	352.9	386.5	420.1	428.5	611.2	854.8	976.6	1192.4	1624.1	1948.0	1978.6
117.5°	398.4	429.0	459.5	467.2	622.5	829.7	933.3	1128.1	1517.7	1809.9	1843.8
120°	425.1	453.8	482.5	489.7	631.8	821.3	916.0	1094.0	1449.9	1717.0	1749.9
122.5°	451.0	480.1	509.0	516.3	645.1	816.8	902.6	1062.9	1383.5	1623.9	1656.4
125°	490.9	517.3	543.8	550.4	663.0	813.1	888.2	1024.4	1296.7	1500.9	1530.9
127.5°	523.2	549.9	576.7	583.3	680.9	811.0	876.1	993.0	1226.8	1402.2	1427.5
130°	540.6	569.4	598.0	605.2	694.0	812.3	871.5	975.6	1183.8	1339.8	1363.2
132.5°	558.4	587.2	616.0	623.2	704.6	813.1	867.4	960.6	1147.0	1286.7	1307.6
135°	585.1	611.2	637.4	643.9	716.1	812.4	860.5	938.6	1094.6	1211.7	1229.7
137.5°	612.1	638.1	664.1	670.5	733.5	817.4	859.4	925.3	1057.3	1156.2	1171.0
140°	634.7	658.6	682.4	688.4	744.0	818.2	855.3	912.2	1026.3	1111.7	1125.6
142.5°	652.0	674.1	696.2	701.7	752.9	821.2	855.3	905.3	1005.5	1080.5	1092.4
145°	678.6	697.8	717.0	721.9	764.5	821.2	849.6	890.5	972.4	1033.8	1042.7
147.5°	705.2	723.8	742.6	747.3	781.4	826.9	849.6	881.8	946.2	994.5	1002.0
150°	722.4	739.4	756.4	760.6	790.3	829.8	849.6	876.7	931.1	971.9	978.0
152.5°	740.4	753.2	766.1	769.2	796.0	831.7	849.6	872.8	919.2	954.1	958.7
155°	766.9	776.4	786.0	788.3	808.8	835.9	849.6	868.1	905.0	932.7	935.7
157.5°	786.6	795.9	805.0	807.3	821.5	840.2	849.6	864.0	892.6	914.2	916.3
160°	799.9	807.1	814.3	816.0	827.2	842.1	849.6	861.9	886.5	905.0	906.2
162.5°	813.1	818.6	824.0	825.3	833.4	844.1	849.6	859.9	880.7	896.3	897.4
165°	827.6	832.5	837.3	838.5	842.2	847.1	849.6	857.0	871.9	883.0	884.2
167.5°	840.9	843.1	845.5	846.0	849.1	853.2	855.3	860.1	869.9	877.2	877.8
170°	849.6	851.8	854.1	854.7	854.9	855.2	855.3	860.1	869.9	877.2	877.2
172.5°	854.1	854.6	855.2	855.3	855.3	855.3	855.3	859.1	866.8	872.6	872.2
175°	860.5	860.5	860.5	860.5	858.7	856.4	855.3	857.7	862.6	866.3	866.3
177.5°	860.5	860.5	860.5	860.5	859.2	857.4	856.5	858.4	862.3	865.2	864.6
180°	860.5	860.5	860.5	860.5	860.5	860.5	860.5	860.5	860.5	860.5	860.5



TEST NUMBER: P936805

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	871.4	871.4
2.5°	930.3	924.7
5°	1196.5	1202.2
7.5°	1611.2	1608.4
10°	2003.5	2028.7
12.5°	2289.3	2294.9
15°	2463.1	2474.3
17.5°	2530.3	2533.1
20°	2533.1	2527.5
22.5°	2502.3	2496.7
25°	2465.9	2463.1
27.5°	2432.2	2435.0
30°	2418.2	2426.6
32.5°	2418.2	2432.2
35°	2423.8	2437.8
37.5°	2421.0	2437.8
40°	2409.8	2429.4
42.5°	2379.0	2393.0
45°	2331.4	2348.2
47.5°	2269.7	2280.9
50°	2191.3	2202.5
52.5°	2093.2	2096.0
55°	1975.5	1986.7
57.5°	1849.4	1852.2
60°	1709.3	1717.7
62.5°	1560.8	1560.8
65°	1403.9	1409.5
67.5°	1241.4	1255.4
70°	1076.1	1078.9
72.5°	913.5	913.5
75°	745.3	748.1
77.5°	585.6	585.6
80°	434.3	437.1
82.5°	299.8	305.4
85°	187.7	187.7
87.5°	86.9	78.5
90°	21.9	21.9
92.5°	87.9	70.4
95°	306.4	253.5
97.5°	734.1	633.5
100°	1057.8	937.9
102.5°	1376.1	1273.4
105°	1782.0	1726.8
107.5°	2047.8	2061.2
110°	2149.1	2206.7



TEST NUMBER: P936805

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2158.3	2246.6
115°	2101.0	2223.5
117.5°	1979.6	2115.4
120°	1881.9	2013.8
122.5°	1786.6	1916.8
125°	1650.8	1770.7
127.5°	1528.6	1629.7
130°	1456.7	1550.1
132.5°	1391.3	1475.0
135°	1301.8	1373.9
137.5°	1230.0	1289.0
140°	1180.7	1235.9
142.5°	1139.9	1187.4
145°	1078.7	1114.6
147.5°	1031.7	1061.5
150°	1002.1	1026.3
152.5°	976.9	995.1
155°	947.8	959.9
157.5°	924.8	933.3
160°	911.1	916.0
162.5°	902.1	906.7
165°	889.2	894.0
167.5°	879.8	881.9
170°	877.2	877.2
172.5°	870.4	868.6
175°	866.3	866.3
177.5°	862.5	860.5
180°	860.5	860.5



TEST NUMBER: P936805
 CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-12

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	4.88	5.82	5.78	6.76	7.95	18.07	19.02	18.97	19.95	21.15
	3H	5.59	6.44	6.51	7.38	8.60	19.92	20.77	20.84	21.71	22.94
	4H	5.89	6.70	6.82	7.64	8.88	20.57	21.38	21.51	22.33	23.56
	6H	6.14	6.89	7.09	7.84	9.09	21.01	21.76	21.96	22.71	23.96
	8H	6.21	6.93	7.17	7.90	9.14	21.14	21.85	22.09	22.82	24.06
	12H	6.24	6.91	7.19	7.88	9.15	21.21	21.89	22.17	22.85	24.12
4H	2H	12.11	12.92	13.05	13.87	15.10	18.35	19.16	19.29	20.11	21.34
	3H	13.69	14.36	14.63	15.34	16.59	20.41	21.09	21.36	22.06	23.31
	4H	13.78	14.40	14.74	15.37	16.64	21.19	21.80	22.15	22.78	24.05
	6H	13.80	14.33	14.77	15.33	16.60	21.73	22.27	22.71	23.26	24.53
	8H	13.78	14.28	14.75	15.27	16.55	21.90	22.40	22.88	23.39	24.67
	12H	13.74	14.19	14.73	15.20	16.49	22.00	22.45	23.00	23.46	24.75
8H	4H	15.24	15.74	16.21	16.73	18.01	21.25	21.75	22.23	22.74	24.03
	6H	15.49	15.90	16.49	16.93	18.21	21.89	22.31	22.89	23.34	24.62
	8H	15.50	15.87	16.51	16.89	18.19	22.11	22.48	23.12	23.50	24.80
	12H	15.48	15.80	16.49	16.81	18.16	22.27	22.59	23.28	23.60	24.95
12H	4H	15.39	15.84	16.38	16.85	18.14	21.21	21.66	22.20	22.67	23.96
	6H	15.75	16.11	16.76	17.13	18.43	21.88	22.24	22.88	23.26	24.56
	8H	15.82	16.14	16.83	17.16	18.50	22.11	22.44	23.13	23.45	24.79