

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: P938216

Luminaire Tested: SQ4-FB-150U-050D-835-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938216
REPORT IS A COMBINATION OF REPORTS P933645 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

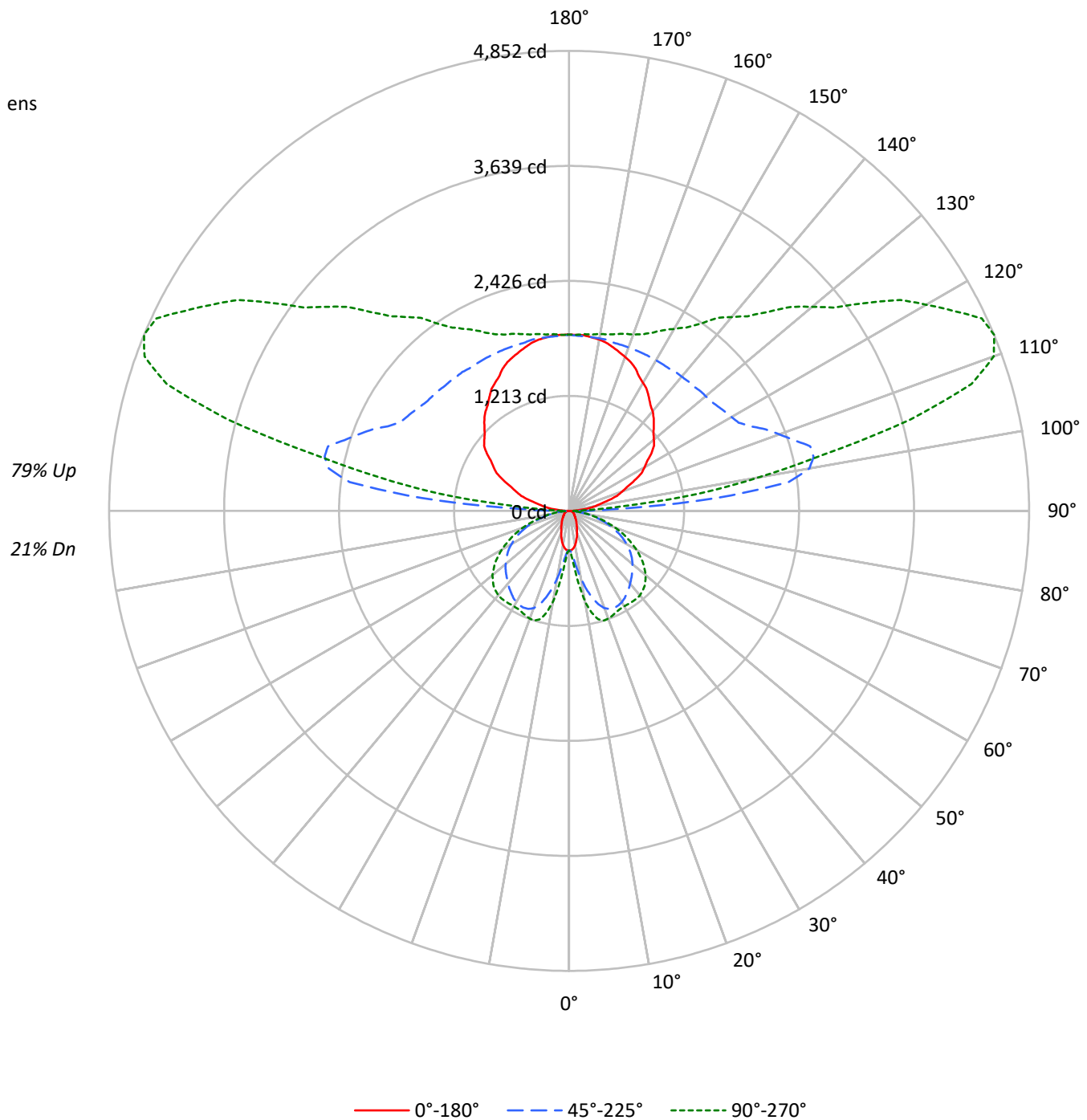
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15283.0 lumens
Efficiency: N/A
Efficacy: 137.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 111.2
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

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Luminous Intensity Polar Plot





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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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	24	24	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	20	20	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	17	17	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	14	14	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	12	12	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	11	11	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	9	9	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	8	8	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	7	7	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	6	6	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1935	1935	1935
5°	1891	2237	2601
10°	1715	3261	4313
15°	1458	4260	5208
20°	1186	4937	5307
25°	990	5166	5200
30°	835	5199	5190
35°	738	5112	5324
40°	643	5000	5463
45°	583	4918	5484
50°	534	4844	5393
55°	512	4736	5154
60°	524	4528	4777
65°	545	4212	4258
70°	581	3673	3597
75°	644	2995	2807
80°	704	2077	1891
85°	624	1102	968

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5484 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	0.4
10°-20°	239.1	1.6
20°-30°	418.3	2.7
30°-40°	538.5	3.5
40°-50°	601.5	3.9
50°-60°	576.1	3.8
60°-70°	456.5	3.0
70°-80°	268.5	1.8
80°-90°	81.7	0.5
90°-100°	906.0	5.9
100°-110°	2381.9	15.6
110°-120°	2469.8	16.2
120°-130°	1981.1	13.0
130°-140°	1554.4	10.2
140°-150°	1193.1	7.8
150°-160°	859.2	5.6
160°-170°	525.7	3.4
170°-180°	177.6	1.2
0°-30°	711.4	4.7
0°-40°	1249.9	8.2
0°-60°	2427.4	15.9
0°-90°	3234.1	21.2
90°-120°	5757.7	37.7
90°-150°	10486.3	68.6
90°-180°	12049.0	78.8
0°-180°	15283.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	417	417	417	417	417	
5°	406	436	491	555	575	38
15°	304	562	947	1148	1184	85
25°	194	637	1128	1178	1179	90
35°	131	609	1062	1123	1167	82
45°	90	486	939	1076	1124	70
55°	64	308	797	926	951	59
65°	51	164	592	665	675	51
75°	38	101	325	357	358	39
85°	13	31	80	88	90	14
90°	12	35	95	47	47	11
95°	120	469	1560	805	548	133
105°	429	650	2633	3998	3730	455
115°	762	926	2109	4208	4802	753
125°	1060	1189	1918	3242	3825	941
135°	1264	1391	1859	2617	2968	978
145°	1466	1559	1835	2233	2408	918
155°	1657	1703	1835	2015	2073	761
165°	1788	1811	1835	1907	1931	504
175°	1859	1859	1847	1871	1871	176
180°	1859	1859	1859	1859	1859	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	417.1	417.1	417.1	417.1	417.1	417.1	417.1	417.1	417.1	417.1	417.1
2.5°	417.1	417.1	419.8	421.2	423.8	425.2	427.9	430.6	438.6	439.9	442.6
5°	406.4	411.8	429.2	435.9	454.7	480.2	490.9	508.3	544.6	555.3	562.0
7.5°	390.3	402.4	445.3	456.0	503.0	570.0	598.2	635.8	693.4	721.6	744.4
10°	364.8	390.3	466.8	492.3	568.7	670.6	723.0	775.3	862.4	901.3	916.1
12.5°	336.7	378.2	489.6	524.4	634.4	783.3	846.4	904.0	1003.3	1055.6	1063.6
15°	304.5	360.8	511.0	562.0	704.2	877.2	947.0	1018.0	1110.6	1148.1	1157.5
17.5°	276.3	347.4	531.2	584.8	757.8	961.7	1032.8	1091.8	1166.9	1192.4	1199.1
20°	241.4	325.9	544.6	614.3	814.2	1023.4	1091.8	1137.4	1188.4	1204.5	1207.2
22.5°	215.9	303.1	552.6	625.0	851.7	1061.0	1118.6	1154.9	1189.7	1195.1	1196.4
25°	194.5	277.6	551.3	637.1	883.9	1083.8	1128.0	1154.9	1175.0	1177.7	1177.7
27.5°	174.4	249.5	545.9	639.8	908.1	1089.1	1124.0	1142.8	1152.2	1157.5	1157.5
30°	156.9	222.7	532.5	634.4	918.8	1083.8	1111.9	1121.3	1130.7	1138.8	1142.8
32.5°	143.5	197.2	512.4	623.7	920.1	1070.3	1090.5	1095.8	1109.2	1128.0	1134.7
35°	131.4	171.7	489.6	608.9	912.1	1048.9	1062.3	1067.7	1094.5	1122.7	1132.0
37.5°	119.4	152.9	460.1	583.5	900.0	1023.4	1032.8	1042.2	1083.8	1117.3	1128.0
40°	107.3	136.8	425.2	555.3	881.2	992.6	1000.6	1015.4	1070.3	1109.2	1120.0
42.5°	97.9	123.4	387.6	525.8	857.1	957.7	969.8	991.2	1054.3	1095.8	1107.9
45°	89.9	110.0	347.4	485.5	826.2	921.5	938.9	968.4	1035.5	1075.7	1086.4
47.5°	81.8	100.6	305.8	444.0	792.7	885.3	908.1	941.6	1010.0	1048.9	1058.3
50°	75.1	91.2	264.2	399.7	756.5	846.4	873.2	908.1	977.8	1014.0	1026.1
52.5°	69.7	83.2	225.3	355.4	714.9	806.1	837.0	873.2	938.9	973.8	981.8
55°	64.4	76.5	191.8	308.5	672.0	763.2	796.7	831.6	896.0	925.5	930.9
57.5°	61.7	71.1	163.6	264.2	626.4	714.9	752.5	784.7	845.0	867.8	873.2
60°	57.7	67.1	142.2	226.7	576.8	669.3	701.5	733.7	784.7	803.4	807.5
62.5°	53.7	64.4	126.1	190.5	525.8	615.7	647.8	677.4	720.3	733.7	739.1
65°	51.0	61.7	114.0	163.6	473.5	559.3	591.5	617.0	651.9	665.3	668.0
67.5°	48.3	59.0	104.6	140.8	421.2	503.0	527.1	551.3	578.1	591.5	592.8
70°	44.3	56.3	96.6	124.7	367.5	438.6	458.7	484.2	505.7	512.4	516.4
72.5°	41.6	52.3	91.2	112.7	312.5	376.9	395.7	410.4	429.2	435.9	435.9
75°	37.6	46.9	85.8	100.6	256.2	308.5	324.6	339.3	354.1	356.8	352.8
77.5°	33.5	41.6	73.8	84.5	199.9	244.1	257.5	265.6	277.6	280.3	281.7
80°	28.2	36.2	57.7	65.7	144.9	179.7	189.1	195.8	206.6	206.6	209.2
82.5°	21.5	28.2	41.6	46.9	97.9	123.4	131.4	135.5	142.2	142.2	142.2
85°	13.4	17.4	26.8	30.8	59.0	75.1	80.5	81.8	87.2	88.5	88.5
87.5°	6.7	9.4	17.4	18.8	30.8	38.9	38.9	41.6	41.6	40.2	38.9
90°	12.5	22.5	32.4	34.9	54.9	81.5	94.8	84.3	63.2	47.4	47.4
92.5°	49.9	134.7	219.6	240.8	338.5	468.8	533.9	467.9	336.0	237.0	227.6
95°	119.8	275.0	430.2	469.0	832.8	1317.9	1560.5	1392.5	1056.6	804.6	776.0
97.5°	207.1	344.0	481.0	515.2	1121.9	1930.8	2335.2	2229.0	2016.7	1857.4	1803.1
100°	274.4	398.6	522.8	553.9	1227.1	2124.6	2573.4	2581.2	2596.7	2608.3	2543.6
102.5°	331.8	447.7	563.5	592.5	1275.3	2185.6	2640.8	2776.1	3046.6	3249.5	3194.1
105°	429.1	527.2	625.4	649.9	1311.0	2192.5	2633.3	2936.6	3543.1	3998.0	3968.2
107.5°	528.9	620.4	711.8	734.7	1317.7	2095.0	2483.6	2906.6	3752.7	4387.2	4394.4
110°	596.3	678.9	761.5	782.1	1307.7	2008.5	2358.9	2831.8	3777.6	4487.0	4518.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	662.4	741.1	819.8	839.5	1308.1	1932.9	2245.3	2729.3	3697.3	4423.3	4471.0
115°	762.2	834.8	907.4	925.6	1320.2	1846.3	2109.4	2575.6	3508.1	4207.5	4273.6
117.5°	860.7	926.7	992.7	1009.2	1344.7	1792.1	2015.8	2436.6	3278.2	3909.4	3982.7
120°	918.1	980.2	1042.3	1057.8	1364.7	1773.8	1978.4	2362.9	3131.9	3708.6	3779.8
122.5°	974.2	1036.9	1099.5	1115.2	1393.4	1764.3	1949.7	2295.9	2988.4	3507.7	3578.0
125°	1060.3	1117.4	1174.5	1188.8	1432.0	1756.3	1918.5	2212.6	2800.8	3242.0	3306.7
127.5°	1130.2	1187.8	1245.5	1259.9	1470.7	1751.8	1892.3	2144.8	2649.9	3028.7	3083.3
130°	1167.6	1229.7	1291.8	1307.3	1499.0	1754.5	1882.3	2107.1	2556.8	2894.0	2944.5
132.5°	1206.3	1268.4	1330.5	1346.0	1521.9	1756.4	1873.6	2074.8	2477.3	2779.2	2824.4
135°	1263.6	1320.2	1376.8	1390.9	1546.8	1754.7	1858.6	2027.2	2364.3	2617.1	2656.0
137.5°	1322.3	1378.3	1434.2	1448.2	1584.2	1765.5	1856.2	1998.7	2283.6	2497.3	2529.2
140°	1370.9	1422.5	1474.0	1486.9	1607.1	1767.3	1847.4	1970.5	2216.7	2401.3	2431.1
142.5°	1408.3	1456.0	1503.7	1515.6	1626.2	1773.7	1847.4	1955.5	2171.7	2333.9	2359.5
145°	1465.7	1507.3	1548.9	1559.3	1651.2	1773.7	1834.9	1923.3	2100.2	2232.9	2252.3
147.5°	1523.1	1563.6	1604.1	1614.2	1687.8	1785.9	1834.9	1904.5	2043.6	2148.0	2164.1
150°	1560.5	1597.1	1633.7	1642.8	1706.8	1792.2	1834.9	1893.7	2011.2	2099.4	2112.4
152.5°	1599.2	1626.9	1654.7	1661.6	1719.4	1796.4	1834.9	1885.1	1985.4	2060.7	2070.5
155°	1656.6	1677.1	1697.6	1702.7	1746.8	1805.5	1834.9	1874.8	1954.7	2014.6	2021.1
157.5°	1699.0	1719.0	1738.9	1743.9	1774.2	1814.7	1834.9	1866.0	1928.1	1974.7	1979.3
160°	1727.7	1743.2	1758.7	1762.6	1786.7	1818.8	1834.9	1861.5	1914.8	1954.7	1957.3
162.5°	1756.4	1768.0	1779.7	1782.6	1800.0	1823.3	1834.9	1857.4	1902.3	1936.0	1938.5
165°	1787.5	1798.0	1808.6	1811.2	1819.1	1829.6	1834.9	1851.0	1883.2	1907.3	1909.9
167.5°	1816.2	1821.2	1826.2	1827.5	1834.1	1843.0	1847.4	1857.9	1879.0	1894.8	1895.9
170°	1834.9	1839.9	1844.9	1846.2	1846.6	1847.1	1847.4	1857.9	1879.0	1894.8	1894.8
172.5°	1844.9	1846.0	1847.1	1847.4	1847.4	1847.4	1847.4	1855.7	1872.3	1884.8	1883.8
175°	1858.6	1858.6	1858.6	1858.6	1854.9	1849.9	1847.4	1852.7	1863.2	1871.1	1871.1
177.5°	1858.6	1858.6	1858.6	1858.6	1855.7	1851.8	1849.9	1854.1	1862.4	1868.6	1867.5
180°	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	417.1	417.1
2.5°	445.3	442.6
5°	572.7	575.4
7.5°	771.2	769.9
10°	959.0	971.1
12.5°	1095.8	1098.5
15°	1179.0	1184.4
17.5°	1211.2	1212.5
20°	1212.5	1209.8
22.5°	1197.8	1195.1
25°	1180.3	1179.0
27.5°	1164.2	1165.6
30°	1157.5	1161.6
32.5°	1157.5	1164.2
35°	1160.2	1166.9
37.5°	1158.9	1166.9
40°	1153.5	1162.9
42.5°	1138.8	1145.5
45°	1116.0	1124.0
47.5°	1086.4	1091.8
50°	1048.9	1054.3
52.5°	1001.9	1003.3
55°	945.6	951.0
57.5°	885.3	886.6
60°	818.2	822.2
62.5°	747.1	747.1
65°	672.0	674.7
67.5°	594.2	600.9
70°	515.1	516.4
72.5°	437.3	437.3
75°	356.8	358.1
77.5°	280.3	280.3
80°	207.9	209.2
82.5°	143.5	146.2
85°	89.9	89.9
87.5°	41.6	37.6
90°	47.4	47.4
92.5°	189.9	152.2
95°	661.8	547.6
97.5°	1585.7	1368.4
100°	2284.7	2025.8
102.5°	2972.3	2750.6
105°	3849.0	3729.8
107.5°	4423.2	4452.0
110°	4642.2	4766.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4661.7	4852.4
115°	4538.1	4802.5
117.5°	4276.0	4569.3
120°	4064.8	4349.7
122.5°	3859.1	4140.2
125°	3565.7	3824.6
127.5°	3301.8	3520.2
130°	3146.3	3348.1
132.5°	3005.1	3185.9
135°	2811.8	2967.6
137.5°	2656.7	2784.2
140°	2550.3	2669.5
142.5°	2462.1	2564.7
145°	2329.9	2407.5
147.5°	2228.4	2292.7
150°	2164.6	2216.7
152.5°	2109.9	2149.3
155°	2047.2	2073.2
157.5°	1997.5	2015.8
160°	1967.9	1978.4
162.5°	1948.4	1958.4
165°	1920.5	1931.0
167.5°	1900.4	1904.8
170°	1894.8	1894.8
172.5°	1880.0	1876.1
175°	1871.1	1871.1
177.5°	1863.0	1858.6
180°	1858.6	1858.6



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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	0.00	0.39	0.89	1.54	3.17	12.90	13.57	14.07	14.72	16.35
	3H	0.41	1.01	1.59	2.17	3.81	14.73	15.32	15.90	16.48	18.13
	4H	0.70	1.27	1.88	2.43	4.08	15.36	15.93	16.54	17.09	18.74
	6H	0.94	1.46	2.13	2.63	4.29	15.78	16.30	16.97	17.47	19.13
	8H	1.00	1.50	2.20	2.68	4.33	15.90	16.39	17.09	17.57	19.22
	12H	1.01	1.48	2.21	2.66	4.33	15.96	16.43	17.15	17.60	19.28
4H	2H	6.91	7.48	8.10	8.64	10.29	13.15	13.72	14.34	14.88	16.53
	3H	8.46	8.94	9.66	10.12	11.78	15.18	15.65	16.37	16.84	18.50
	4H	8.55	8.99	9.74	10.16	11.84	15.94	16.37	17.13	17.55	19.23
	6H	8.55	8.92	9.75	10.12	11.79	16.46	16.84	17.66	18.04	19.70
	8H	8.52	8.87	9.72	10.06	11.74	16.62	16.97	17.82	18.16	19.84
	12H	8.47	8.78	9.68	9.98	11.67	16.70	17.02	17.92	18.22	19.91
8H	4H	9.98	10.33	11.18	11.51	13.20	15.98	16.33	17.18	17.52	19.20
	6H	10.21	10.50	11.43	11.73	13.41	16.60	16.89	17.82	18.12	19.80
	8H	10.22	10.48	11.45	11.68	13.38	16.82	17.07	18.04	18.27	19.98
	12H	10.18	10.40	11.41	11.61	13.34	16.95	17.17	18.18	18.38	20.11
12H	4H	10.11	10.43	11.32	11.63	13.32	15.92	16.24	17.14	17.44	19.13
	6H	10.47	10.72	11.69	11.92	13.63	16.58	16.83	17.80	18.04	19.74
	8H	10.53	10.75	11.75	11.95	13.68	16.80	17.02	18.03	18.23	19.96