

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: P938221

Luminaire Tested: SQ4-FB-150U-050D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938221
REPORT IS A COMBINATION OF REPORTS P933621 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-927-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

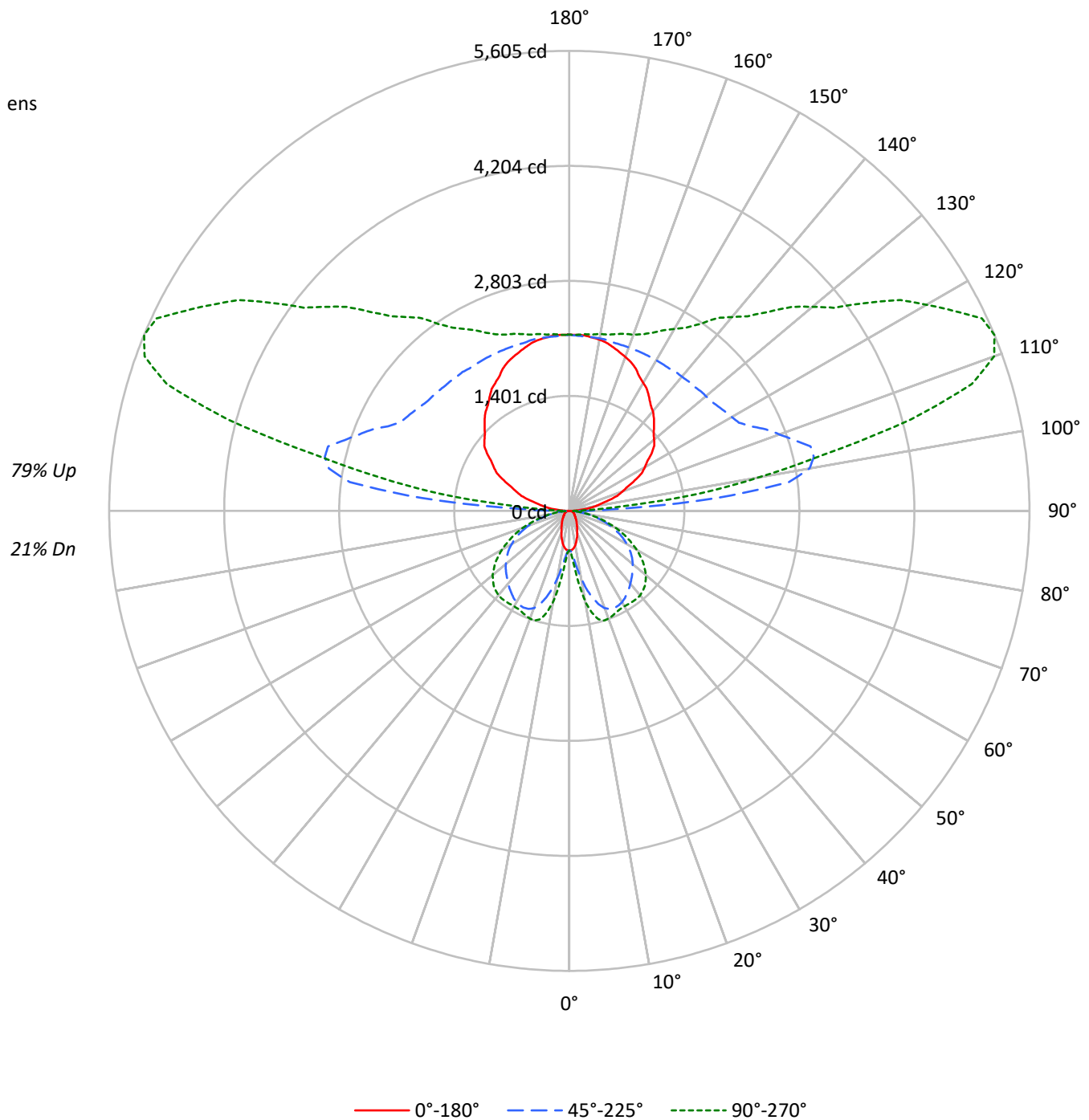
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17652.2 lumens
Efficiency: N/A
Efficacy: 105.8 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-Indirect

Input Watts (W): 166.8
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			
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
RCR																				
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21		
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17		
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14		
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12		
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10		
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8		
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7		
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6		
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5		
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5		
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1491	1491	1491
5°	1457	1723	2003
10°	1322	2512	3321
15°	1124	3283	4010
20°	915	3805	4087
25°	764	3983	4004
30°	644	4009	3996
35°	570	3944	4100
40°	497	3858	4207
45°	450	3796	4223
50°	414	3740	4153
55°	396	3658	3969
60°	406	3499	3678
65°	424	3257	3279
70°	452	2842	2770
75°	503	2319	2161
80°	554	1610	1457
85°	502	855	745

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 5345 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.3	0.4
10°-20°	276.2	1.6
20°-30°	483.2	2.7
30°-40°	622.0	3.5
40°-50°	694.8	3.9
50°-60°	665.4	3.8
60°-70°	527.4	3.0
70°-80°	310.1	1.8
80°-90°	94.3	0.5
90°-100°	1046.4	5.9
100°-110°	2751.1	15.6
110°-120°	2852.6	16.2
120°-130°	2288.1	13.0
130°-140°	1795.4	10.2
140°-150°	1378.0	7.8
150°-160°	992.4	5.6
160°-170°	607.2	3.4
170°-180°	205.1	1.2
0°-30°	821.8	4.7
0°-40°	1443.8	8.2
0°-60°	2804.0	15.9
0°-90°	3735.8	21.2
90°-120°	6650.2	37.7
90°-150°	12111.7	68.6
90°-180°	13916.0	78.8
0°-180°	17652.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	470	504	567	641	665	43
15°	352	649	1094	1326	1368	98
25°	225	736	1303	1360	1362	103
35°	152	703	1227	1297	1348	95
45°	104	561	1084	1242	1298	80
55°	74	356	920	1069	1098	68
65°	59	189	683	768	779	58
75°	43	116	375	412	414	45
85°	16	36	93	102	104	16
90°	14	40	110	55	55	13
95°	138	542	1802	929	632	154
105°	496	751	3041	4618	4308	525
115°	880	1069	2436	4860	5547	869
125°	1225	1373	2216	3744	4417	1087
135°	1460	1606	2147	3023	3428	1129
145°	1693	1801	2119	2579	2781	1061
155°	1913	1967	2119	2327	2394	879
165°	2065	2092	2119	2203	2230	583
175°	2147	2147	2134	2161	2161	204
180°	2147	2147	2147	2147	2147	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	481.9	481.9	484.9	486.5	489.6	491.1	494.3	497.3	506.7	508.2	511.3
5°	469.5	475.6	495.8	503.5	525.2	554.6	567.0	587.2	629.0	641.4	649.2
7.5°	450.8	464.8	514.4	526.8	581.0	658.5	691.0	734.4	801.0	833.5	859.9
10°	421.4	450.8	539.2	568.6	656.9	774.7	835.1	895.5	996.2	1041.2	1058.2
12.5°	388.8	436.9	565.5	605.8	732.8	904.8	977.7	1044.3	1158.9	1219.4	1228.6
15°	351.7	416.8	590.3	649.2	813.4	1013.2	1093.9	1175.9	1282.9	1326.2	1337.1
17.5°	319.2	401.2	613.5	675.5	875.4	1110.9	1193.0	1261.2	1348.0	1377.4	1385.2
20°	278.9	376.5	629.0	709.6	940.5	1182.2	1261.2	1313.9	1372.8	1391.3	1394.4
22.5°	249.5	350.1	638.3	722.0	983.8	1225.5	1292.1	1334.0	1374.3	1380.5	1382.0
25°	224.7	320.7	636.8	736.0	1021.0	1251.9	1303.0	1334.0	1357.2	1360.4	1360.4
27.5°	201.4	288.2	630.6	739.0	1048.9	1258.1	1298.4	1320.0	1330.9	1337.1	1337.1
30°	181.3	257.2	615.1	732.8	1061.3	1251.9	1284.4	1295.3	1306.1	1315.4	1320.0
32.5°	165.8	227.8	591.8	720.4	1062.8	1236.4	1259.6	1265.8	1281.3	1303.0	1310.8
35°	151.8	198.4	565.5	703.4	1053.6	1211.6	1227.1	1233.3	1264.3	1296.8	1307.6
37.5°	137.9	176.6	531.5	674.0	1039.6	1182.2	1193.0	1203.8	1251.9	1290.6	1303.0
40°	124.0	158.0	491.1	641.4	1017.9	1146.5	1155.8	1172.9	1236.4	1281.3	1293.7
42.5°	113.1	142.5	447.8	607.4	990.1	1106.3	1120.2	1145.0	1217.8	1265.8	1279.7
45°	103.8	127.0	401.2	560.9	954.4	1064.4	1084.5	1118.7	1196.1	1242.5	1254.9
47.5°	94.5	116.2	353.3	512.8	915.7	1022.6	1048.9	1087.6	1166.6	1211.6	1222.5
50°	86.8	105.3	305.2	461.7	873.8	977.7	1008.6	1048.9	1129.5	1171.3	1185.3
52.5°	80.5	96.1	260.3	410.6	825.8	931.2	966.8	1008.6	1084.5	1124.8	1134.1
55°	74.4	88.3	221.5	356.4	776.2	881.6	920.3	960.6	1035.0	1069.1	1075.2
57.5°	71.3	82.1	189.0	305.2	723.6	825.8	869.2	906.4	976.1	1002.5	1008.6
60°	66.6	77.5	164.2	261.9	666.2	773.2	810.3	847.5	906.4	928.1	932.7
62.5°	62.0	74.4	145.6	220.0	607.4	711.2	748.4	782.4	832.0	847.5	853.7
65°	58.9	71.3	131.7	189.0	546.9	646.1	683.3	712.7	753.0	768.5	771.5
67.5°	55.7	68.1	120.8	162.7	486.5	581.0	608.9	636.8	667.7	683.3	684.8
70°	51.1	65.1	111.6	144.1	424.5	506.7	529.9	559.3	584.1	591.8	596.5
72.5°	48.0	60.4	105.3	130.1	361.0	435.4	457.1	474.1	495.8	503.5	503.5
75°	43.4	54.2	99.2	116.2	295.9	356.4	374.9	392.0	409.0	412.1	407.5
77.5°	38.7	48.0	85.2	97.6	230.8	282.0	297.5	306.8	320.7	323.8	325.3
80°	32.6	41.8	66.6	75.9	167.3	207.6	218.4	226.2	238.6	238.6	241.7
82.5°	24.8	32.6	48.0	54.2	113.1	142.5	151.8	156.5	164.2	164.2	164.2
85°	15.5	20.2	31.0	35.7	68.1	86.8	92.9	94.5	100.7	102.3	102.3
87.5°	7.8	10.9	20.2	21.7	35.7	45.0	45.0	48.0	48.0	46.5	45.0
90°	14.4	25.9	37.5	40.3	63.4	94.1	109.5	97.3	73.0	54.7	54.7
92.5°	57.6	155.5	253.6	278.0	390.9	541.4	616.6	540.4	388.0	273.7	262.9
95°	138.3	317.5	496.9	541.7	962.0	1522.3	1802.4	1608.4	1220.4	929.3	896.4
97.5°	239.2	397.3	555.5	595.1	1295.8	2230.0	2697.1	2574.5	2329.2	2145.3	2082.5
100°	316.9	460.4	603.8	639.7	1417.3	2453.9	2972.3	2981.2	2999.2	3012.6	2937.9
102.5°	383.2	517.1	650.9	684.4	1472.9	2524.4	3050.1	3206.4	3518.8	3753.2	3689.1
105°	495.6	609.0	722.3	750.7	1514.3	2532.4	3041.4	3391.7	4092.2	4617.6	4583.2
107.5°	610.9	716.6	822.2	848.6	1521.9	2419.6	2868.6	3357.1	4334.3	5067.1	5075.5
110°	688.7	784.1	879.5	903.4	1510.4	2319.8	2724.5	3270.7	4363.1	5182.4	5218.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	765.1	856.0	946.9	969.7	1510.9	2232.5	2593.4	3152.4	4270.4	5109.0	5164.0
115°	880.3	964.2	1048.1	1069.1	1524.8	2132.5	2436.4	2974.9	4051.9	4859.7	4936.1
117.5°	994.1	1070.3	1146.5	1165.5	1553.1	2069.8	2328.2	2814.3	3786.3	4515.4	4600.1
120°	1060.4	1132.1	1203.8	1221.8	1576.2	2048.7	2285.1	2729.1	3617.2	4283.4	4365.7
122.5°	1125.2	1197.6	1270.0	1288.1	1609.4	2037.7	2251.9	2651.8	3451.6	4051.4	4132.6
125°	1224.7	1290.6	1356.6	1373.1	1654.0	2028.6	2215.9	2555.6	3235.0	3744.5	3819.3
127.5°	1305.3	1371.9	1438.5	1455.1	1698.6	2023.3	2185.6	2477.3	3060.7	3498.2	3561.2
130°	1348.6	1420.3	1492.0	1509.9	1731.3	2026.5	2174.1	2433.7	2953.1	3342.6	3400.9
132.5°	1393.2	1464.9	1536.6	1554.6	1757.7	2028.6	2164.0	2396.5	2861.4	3210.1	3262.3
135°	1459.5	1524.8	1590.1	1606.5	1786.6	2026.7	2146.8	2341.4	2730.7	3022.7	3067.7
137.5°	1527.2	1591.9	1656.6	1672.7	1829.8	2039.1	2143.8	2308.4	2637.6	2884.4	2921.2
140°	1583.4	1642.9	1702.5	1717.4	1856.2	2041.2	2133.7	2275.9	2560.2	2773.5	2807.9
142.5°	1626.6	1681.7	1736.7	1750.5	1878.3	2048.6	2133.7	2258.6	2508.4	2695.7	2725.3
145°	1692.9	1741.0	1788.9	1801.0	1907.1	2048.6	2119.3	2221.5	2425.7	2579.0	2601.4
147.5°	1759.1	1805.9	1852.6	1864.3	1949.3	2062.7	2119.3	2199.7	2360.4	2481.0	2499.6
150°	1802.4	1844.7	1887.0	1897.5	1971.4	2070.1	2119.3	2187.3	2323.0	2424.8	2439.8
152.5°	1847.1	1879.1	1911.1	1919.1	1985.8	2074.8	2119.3	2177.3	2293.2	2380.1	2391.5
155°	1913.4	1937.1	1960.7	1966.7	2017.6	2085.4	2119.3	2165.5	2257.7	2326.9	2334.4
157.5°	1962.3	1985.4	2008.4	2014.2	2049.2	2095.9	2119.3	2155.2	2226.9	2280.7	2286.1
160°	1995.5	2013.4	2031.3	2035.8	2063.7	2100.8	2119.3	2150.1	2211.5	2257.6	2260.7
162.5°	2028.6	2042.0	2055.4	2058.8	2079.0	2105.9	2119.3	2145.3	2197.2	2236.1	2238.9
165°	2064.6	2076.8	2088.9	2092.0	2101.1	2113.3	2119.3	2137.9	2175.0	2202.9	2206.0
167.5°	2097.8	2103.6	2109.3	2110.7	2118.4	2128.7	2133.7	2145.9	2170.2	2188.5	2189.8
170°	2119.3	2125.1	2130.9	2132.4	2132.8	2133.4	2133.7	2145.9	2170.2	2188.5	2188.5
172.5°	2130.9	2132.1	2133.4	2133.7	2133.7	2133.7	2133.7	2143.4	2162.6	2177.0	2175.9
175°	2146.8	2146.8	2146.8	2146.8	2142.4	2136.7	2133.7	2139.8	2152.0	2161.2	2161.2
177.5°	2146.8	2146.8	2146.8	2146.8	2143.4	2138.9	2136.7	2141.4	2151.1	2158.2	2156.9
180°	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	481.9	481.9
2.5°	514.4	511.3
5°	661.6	664.7
7.5°	890.9	889.4
10°	1107.8	1121.7
12.5°	1265.8	1268.9
15°	1361.9	1368.1
17.5°	1399.1	1400.6
20°	1400.6	1397.6
22.5°	1383.5	1380.5
25°	1363.4	1361.9
27.5°	1344.8	1346.4
30°	1337.1	1341.7
32.5°	1337.1	1344.8
35°	1340.2	1348.0
37.5°	1338.6	1348.0
40°	1332.4	1343.3
42.5°	1315.4	1323.2
45°	1289.1	1298.4
47.5°	1254.9	1261.2
50°	1211.6	1217.8
52.5°	1157.4	1158.9
55°	1092.3	1098.5
57.5°	1022.6	1024.1
60°	945.1	949.7
62.5°	863.0	863.0
65°	776.2	779.3
67.5°	686.4	694.1
70°	595.0	596.5
72.5°	505.1	505.1
75°	412.1	413.6
77.5°	323.8	323.8
80°	240.2	241.7
82.5°	165.8	168.9
85°	103.8	103.8
87.5°	48.0	43.4
90°	54.7	54.7
92.5°	219.3	175.8
95°	764.4	632.5
97.5°	1831.5	1580.5
100°	2638.9	2339.8
102.5°	3433.0	3176.9
105°	4445.6	4307.9
107.5°	5108.8	5142.1
110°	5361.7	5505.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5384.3	5604.6
115°	5241.5	5546.9
117.5°	4938.8	5277.5
120°	4694.8	5023.9
122.5°	4457.3	4781.9
125°	4118.3	4417.4
127.5°	3813.6	4065.8
130°	3633.9	3867.0
132.5°	3470.9	3679.7
135°	3247.6	3427.6
137.5°	3068.5	3215.8
140°	2945.6	3083.2
142.5°	2843.8	2962.2
145°	2691.1	2780.7
147.5°	2573.9	2648.1
150°	2500.0	2560.2
152.5°	2437.0	2482.4
155°	2364.4	2394.5
157.5°	2307.2	2328.2
160°	2272.9	2285.1
162.5°	2250.5	2262.0
165°	2218.1	2230.3
167.5°	2194.9	2200.0
170°	2188.5	2188.5
172.5°	2171.4	2166.9
175°	2161.2	2161.2
177.5°	2151.8	2146.8
180°	2146.8	2146.8



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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	0.00	0.00	0.64	2.27	12.01	12.68	13.18	13.83	15.46
	3H	0.00	0.11	0.68	1.27	2.91	13.84	14.44	15.02	15.60	17.24
	4H	0.00	0.37	0.98	1.53	3.18	14.48	15.05	15.66	16.21	17.86
	6H	0.04	0.56	1.23	1.72	3.38	14.91	15.43	16.10	16.59	18.25
	8H	0.10	0.60	1.29	1.78	3.43	15.02	15.52	16.22	16.70	18.35
	12H	0.11	0.58	1.31	1.75	3.43	15.09	15.56	16.28	16.73	18.40
4H	2H	6.02	6.59	7.21	7.75	9.40	12.26	12.83	13.45	13.99	15.64
	3H	7.57	8.04	8.76	9.23	10.89	14.29	14.77	15.49	15.96	17.62
	4H	7.65	8.09	8.85	9.27	10.94	15.06	15.49	16.25	16.67	18.35
	6H	7.65	8.03	8.85	9.22	10.89	15.59	15.96	16.79	17.16	18.83
	8H	7.62	7.97	8.82	9.16	10.85	15.75	16.10	16.95	17.28	18.97
	12H	7.57	7.89	8.79	9.09	10.78	15.83	16.15	17.05	17.35	19.04
8H	4H	9.09	9.43	10.28	10.62	12.31	15.10	15.45	16.30	16.64	18.32
	6H	9.32	9.61	10.54	10.84	12.52	15.72	16.01	16.94	17.24	18.92
	8H	9.33	9.58	10.55	10.79	12.49	15.94	16.19	17.17	17.40	19.10
	12H	9.29	9.51	10.52	10.72	12.45	16.08	16.30	17.31	17.51	19.24
12H	4H	9.22	9.54	10.43	10.74	12.42	15.04	15.36	16.26	16.56	18.25
	6H	9.58	9.83	10.80	11.03	12.73	15.70	15.95	16.93	17.16	18.86
	8H	9.63	9.85	10.86	11.06	12.79	15.93	16.15	17.15	17.35	19.08