

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: P938220

Luminaire Tested: SQ4-FB-150U-050D-840-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938220
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-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

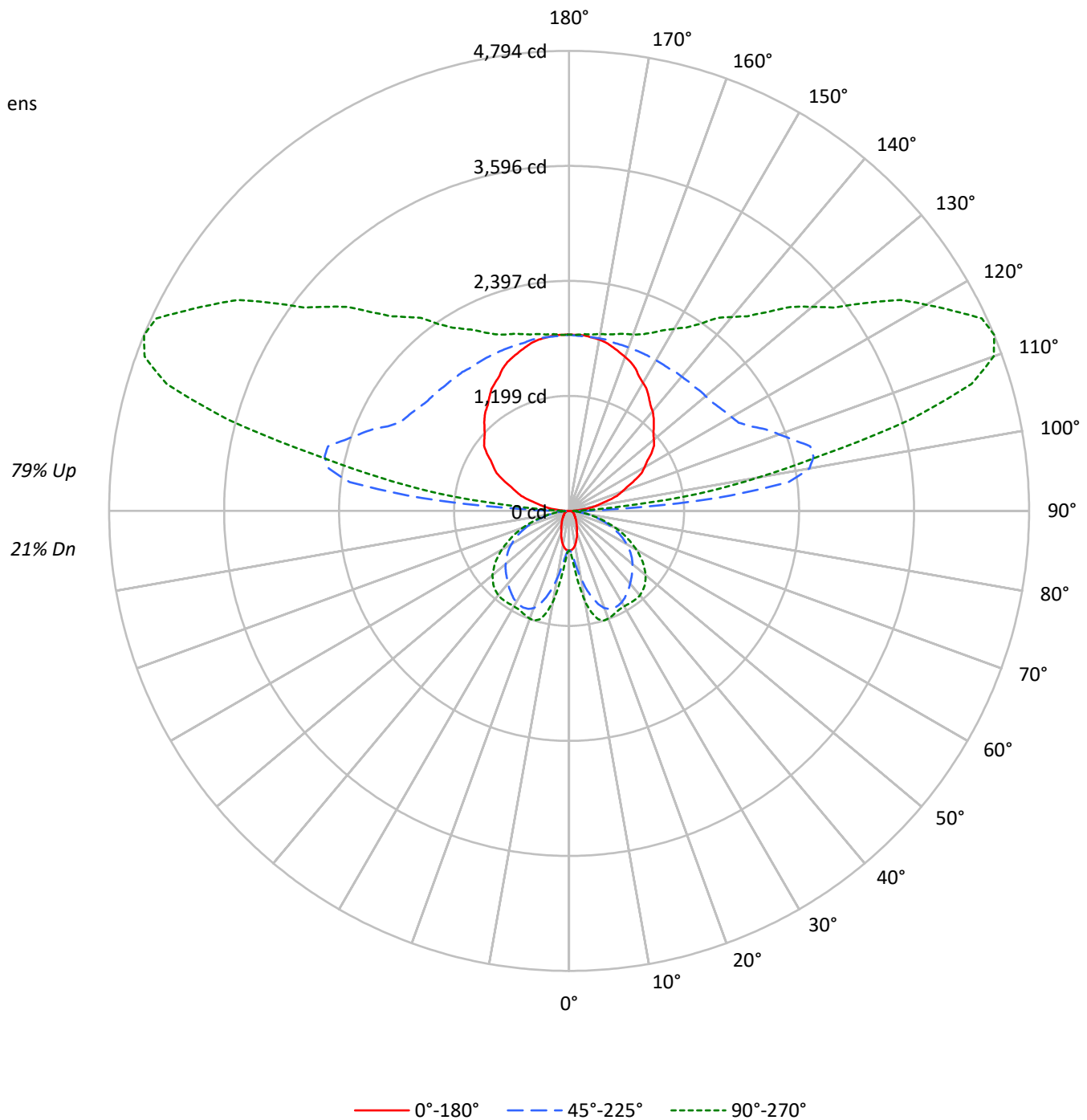
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15099.6 lumens
Efficiency: N/A
Efficacy: 135.8 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 (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

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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°	1912	1912	1912
5°	1868	2210	2570
10°	1694	3222	4261
15°	1440	4209	5145
20°	1172	4877	5244
25°	978	5104	5137
30°	824	5136	5128
35°	729	5051	5260
40°	635	4940	5397
45°	575	4859	5418
50°	528	4786	5328
55°	505	4679	5092
60°	518	4474	4719
65°	539	4161	4207
70°	574	3629	3554
75°	635	2959	2773
80°	696	2051	1869
85°	615	1088	957

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5418 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	0.4
10°-20°	236.3	1.6
20°-30°	413.3	2.7
30°-40°	532.0	3.5
40°-50°	594.3	3.9
50°-60°	569.2	3.8
60°-70°	451.1	3.0
70°-80°	265.2	1.8
80°-90°	80.7	0.5
90°-100°	895.1	5.9
100°-110°	2353.4	15.6
110°-120°	2440.2	16.2
120°-130°	1957.3	13.0
130°-140°	1535.8	10.2
140°-150°	1178.8	7.8
150°-160°	848.9	5.6
160°-170°	519.4	3.4
170°-180°	175.5	1.2
0°-30°	702.9	4.7
0°-40°	1234.9	8.2
0°-60°	2398.3	15.9
0°-90°	3195.3	21.2
90°-120°	5688.7	37.7
90°-150°	10360.5	68.6
90°-180°	11904.0	78.8
0°-180°	15099.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	412	412	412	412	412	
5°	402	431	485	549	568	37
15°	301	555	936	1134	1170	84
25°	192	630	1114	1164	1165	89
35°	130	602	1050	1109	1153	81
45°	89	480	928	1063	1110	69
55°	64	305	787	914	940	58
65°	50	162	584	657	667	50
75°	37	99	321	352	354	39
85°	13	30	80	87	89	14
90°	12	34	94	47	47	11
95°	118	463	1542	795	541	131
105°	424	642	2602	3950	3685	449
115°	753	914	2084	4157	4745	744
125°	1048	1174	1896	3203	3779	930
135°	1248	1374	1836	2586	2932	966
145°	1448	1541	1813	2206	2379	907
155°	1637	1682	1813	1990	2048	752
165°	1766	1790	1813	1884	1908	498
175°	1836	1836	1825	1849	1849	174
180°	1836	1836	1836	1836	1836	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1
2.5°	412.1	412.1	414.8	416.1	418.7	420.1	422.8	425.4	433.3	434.6	437.3
5°	401.5	406.9	424.0	430.7	449.2	474.4	485.0	502.2	538.1	548.6	555.3
7.5°	385.6	397.6	440.0	450.5	497.0	563.2	591.0	628.2	685.1	712.9	735.5
10°	360.4	385.6	461.2	486.4	561.9	662.6	714.3	766.0	852.1	890.5	905.1
12.5°	332.7	373.7	483.7	518.1	626.8	773.9	836.2	893.2	991.3	1042.9	1050.8
15°	300.8	356.5	504.9	555.3	695.7	866.7	935.6	1005.8	1097.3	1134.3	1143.6
17.5°	273.0	343.2	524.8	577.8	748.7	950.2	1020.4	1078.7	1152.9	1178.1	1184.7
20°	238.5	322.0	538.1	606.9	804.4	1011.1	1078.7	1123.8	1174.1	1190.0	1192.7
22.5°	213.3	299.5	546.0	617.5	841.5	1048.3	1105.2	1141.0	1175.4	1180.8	1182.0
25°	192.2	274.3	544.7	629.5	873.3	1070.8	1114.5	1141.0	1160.9	1163.6	1163.6
27.5°	172.3	246.5	539.3	632.1	897.2	1076.0	1110.5	1129.1	1138.4	1143.6	1143.6
30°	155.0	220.0	526.1	626.8	907.8	1070.8	1098.6	1107.8	1117.1	1125.1	1129.1
32.5°	141.8	194.8	506.3	616.2	909.1	1057.5	1077.4	1082.7	1095.9	1114.5	1121.1
35°	129.8	169.6	483.7	601.6	901.2	1036.3	1049.6	1054.9	1081.4	1109.2	1118.4
37.5°	118.0	151.1	454.6	576.5	889.2	1011.1	1020.4	1029.7	1070.8	1103.9	1114.5
40°	106.0	135.2	420.1	548.6	870.6	980.7	988.6	1003.2	1057.5	1095.9	1106.6
42.5°	96.7	121.9	382.9	519.5	846.8	946.2	958.2	979.3	1041.6	1082.7	1094.6
45°	88.8	108.7	343.2	479.7	816.3	910.4	927.6	956.8	1023.1	1062.8	1073.4
47.5°	80.8	99.4	302.1	438.7	783.2	874.7	897.2	930.3	997.9	1036.3	1045.6
50°	74.2	90.1	261.0	394.9	747.4	836.2	862.7	897.2	966.1	1001.8	1013.8
52.5°	68.9	82.2	222.6	351.1	706.3	796.4	827.0	862.7	927.6	962.1	970.0
55°	63.6	75.6	189.5	304.8	663.9	754.0	787.1	821.6	885.2	914.4	919.7
57.5°	61.0	70.2	161.6	261.0	618.9	706.3	743.5	775.3	834.9	857.4	862.7
60°	57.0	66.3	140.5	224.0	569.9	661.3	693.1	724.9	775.3	793.8	797.8
62.5°	53.1	63.6	124.6	188.2	519.5	608.3	640.0	669.3	711.7	724.9	730.2
65°	50.4	61.0	112.6	161.6	467.8	552.6	584.4	609.6	644.1	657.3	660.0
67.5°	47.7	58.3	103.3	139.1	416.1	497.0	520.8	544.7	571.2	584.4	585.7
70°	43.8	55.6	95.4	123.2	363.1	433.3	453.2	478.4	499.6	506.3	510.2
72.5°	41.1	51.7	90.1	111.3	308.8	372.4	391.0	405.5	424.0	430.7	430.7
75°	37.1	46.3	84.8	99.4	253.1	304.8	320.7	335.2	349.9	352.5	348.6
77.5°	33.1	41.1	72.9	83.5	197.5	241.2	254.4	262.4	274.3	276.9	278.3
80°	27.9	35.8	57.0	64.9	143.2	177.5	186.8	193.5	204.1	204.1	206.7
82.5°	21.2	27.9	41.1	46.3	96.7	121.9	129.8	133.9	140.5	140.5	140.5
85°	13.2	17.2	26.5	30.4	58.3	74.2	79.5	80.8	86.2	87.4	87.4
87.5°	6.6	9.3	17.2	18.6	30.4	38.4	38.4	41.1	41.1	39.7	38.4
90°	12.4	22.2	32.0	34.5	54.2	80.5	93.7	83.3	62.4	46.8	46.8
92.5°	49.3	133.1	217.0	237.9	334.4	463.2	527.5	462.3	332.0	234.2	224.9
95°	118.4	271.7	425.0	463.4	822.8	1302.1	1541.8	1375.8	1043.9	794.9	766.7
97.5°	204.6	339.9	475.2	509.0	1108.4	1907.6	2307.2	2202.3	1992.5	1835.1	1781.5
100°	271.1	393.8	516.5	547.3	1212.4	2099.1	2542.5	2550.2	2565.5	2577.0	2513.1
102.5°	327.8	442.3	556.7	585.4	1260.0	2159.4	2609.1	2742.8	3010.0	3210.5	3155.8
105°	424.0	520.9	617.9	642.1	1295.3	2166.2	2601.7	2901.4	3500.6	3950.0	3920.6
107.5°	522.6	613.0	703.3	725.9	1301.9	2069.9	2453.8	2871.7	3707.7	4334.6	4341.7
110°	589.1	670.8	752.4	772.7	1292.0	1984.4	2330.6	2797.8	3732.3	4433.2	4463.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	654.5	732.2	810.0	829.4	1292.4	1909.7	2218.4	2696.5	3652.9	4370.2	4417.3
115°	753.1	824.8	896.5	914.5	1304.4	1824.1	2084.1	2544.7	3466.0	4157.0	4222.3
117.5°	850.4	915.6	980.8	997.1	1328.6	1770.6	1991.6	2407.4	3238.9	3862.5	3934.9
120°	907.1	968.4	1029.8	1045.1	1348.3	1752.5	1954.7	2334.5	3094.3	3664.1	3734.4
122.5°	962.5	1024.5	1086.3	1101.8	1376.7	1743.1	1926.3	2268.3	2952.5	3465.6	3535.1
125°	1047.6	1104.0	1160.4	1174.5	1414.8	1735.2	1895.5	2186.0	2767.2	3203.1	3267.0
127.5°	1116.6	1173.5	1230.6	1244.8	1453.1	1730.8	1869.6	2119.1	2618.1	2992.4	3046.3
130°	1153.6	1214.9	1276.3	1291.6	1481.0	1733.4	1859.7	2081.8	2526.1	2859.3	2909.2
132.5°	1191.8	1253.2	1314.5	1329.8	1503.6	1735.3	1851.1	2049.9	2447.6	2745.8	2790.5
135°	1248.4	1304.4	1360.3	1374.2	1528.2	1733.6	1836.3	2002.9	2335.9	2585.7	2624.1
137.5°	1306.4	1361.8	1417.0	1430.8	1565.2	1744.3	1833.9	1974.7	2256.2	2467.3	2498.8
140°	1354.4	1405.4	1456.3	1469.1	1587.8	1746.1	1825.2	1946.9	2190.1	2372.5	2401.9
142.5°	1391.4	1438.5	1485.7	1497.4	1606.7	1752.4	1825.2	1932.0	2145.6	2305.9	2331.2
145°	1448.1	1489.2	1530.3	1540.6	1631.4	1752.4	1812.9	1900.2	2075.0	2206.1	2225.3
147.5°	1504.8	1544.8	1584.9	1594.8	1667.5	1764.5	1812.9	1881.6	2019.1	2122.2	2138.1
150°	1541.8	1577.9	1614.1	1623.1	1686.3	1770.7	1812.9	1871.0	1987.1	2074.2	2087.1
152.5°	1580.0	1607.4	1634.8	1641.7	1698.8	1774.8	1812.9	1862.5	1961.6	2036.0	2045.7
155°	1636.7	1657.0	1677.2	1682.3	1725.8	1783.8	1812.9	1852.3	1931.2	1990.4	1996.8
157.5°	1678.6	1698.4	1718.0	1723.0	1752.9	1792.9	1812.9	1843.6	1905.0	1951.0	1955.5
160°	1707.0	1722.3	1737.6	1741.4	1765.3	1797.0	1812.9	1839.2	1891.8	1931.2	1933.8
162.5°	1735.3	1746.8	1758.3	1761.2	1778.4	1801.4	1812.9	1835.1	1879.5	1912.8	1915.2
165°	1766.0	1776.4	1786.9	1789.5	1797.3	1807.6	1812.9	1828.8	1860.6	1884.4	1887.0
167.5°	1794.4	1799.3	1804.3	1805.6	1812.1	1820.9	1825.2	1835.6	1856.5	1872.1	1873.1
170°	1812.9	1817.8	1822.8	1824.0	1824.4	1824.9	1825.2	1835.6	1856.5	1872.1	1872.1
172.5°	1822.8	1823.8	1824.9	1825.2	1825.2	1825.2	1825.2	1833.4	1849.8	1862.2	1861.2
175°	1836.3	1836.3	1836.3	1836.3	1832.6	1827.7	1825.2	1830.5	1840.8	1848.6	1848.6
177.5°	1836.3	1836.3	1836.3	1836.3	1833.4	1829.6	1827.7	1831.9	1840.1	1846.2	1845.1
180°	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	412.1	412.1
2.5°	440.0	437.3
5°	565.8	568.5
7.5°	761.9	760.7
10°	947.5	959.4
12.5°	1082.7	1085.3
15°	1164.9	1170.2
17.5°	1196.7	1198.0
20°	1198.0	1195.3
22.5°	1183.4	1180.8
25°	1166.1	1164.9
27.5°	1150.2	1151.6
30°	1143.6	1147.7
32.5°	1143.6	1150.2
35°	1146.3	1152.9
37.5°	1145.0	1152.9
40°	1139.7	1148.9
42.5°	1125.1	1131.8
45°	1102.6	1110.5
47.5°	1073.4	1078.7
50°	1036.3	1041.6
52.5°	989.9	991.3
55°	934.3	939.6
57.5°	874.7	876.0
60°	808.4	812.3
62.5°	738.1	738.1
65°	663.9	666.6
67.5°	587.1	593.7
70°	508.9	510.2
72.5°	432.1	432.1
75°	352.5	353.8
77.5°	276.9	276.9
80°	205.4	206.7
82.5°	141.8	144.4
85°	88.8	88.8
87.5°	41.1	37.1
90°	46.8	46.8
92.5°	187.6	150.4
95°	653.9	541.0
97.5°	1566.7	1352.0
100°	2257.3	2001.5
102.5°	2936.6	2717.6
105°	3802.8	3685.0
107.5°	4370.1	4398.6
110°	4586.5	4709.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4605.8	4794.2
115°	4483.6	4744.9
117.5°	4224.7	4514.5
120°	4016.0	4297.5
122.5°	3812.8	4090.5
125°	3522.9	3778.7
127.5°	3262.2	3478.0
130°	3108.5	3307.9
132.5°	2969.0	3147.7
135°	2778.1	2932.0
137.5°	2624.8	2750.8
140°	2519.7	2637.5
142.5°	2432.6	2533.9
145°	2301.9	2378.6
147.5°	2201.7	2265.2
150°	2138.6	2190.1
152.5°	2084.6	2123.5
155°	2022.6	2048.3
157.5°	1973.5	1991.6
160°	1944.3	1954.7
162.5°	1925.0	1934.9
165°	1897.5	1907.8
167.5°	1877.6	1881.9
170°	1872.1	1872.1
172.5°	1857.4	1853.6
175°	1848.6	1848.6
177.5°	1840.6	1836.3
180°	1836.3	1836.3



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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	0.34	0.85	1.50	3.13	12.86	13.53	14.03	14.68	16.31
	3H	0.37	0.96	1.54	2.13	3.77	14.69	15.28	15.86	16.44	18.09
	4H	0.66	1.22	1.84	2.39	4.03	15.32	15.89	16.50	17.05	18.70
	6H	0.90	1.42	2.09	2.58	4.24	15.74	16.26	16.93	17.43	19.09
	8H	0.96	1.46	2.15	2.64	4.29	15.86	16.35	17.05	17.53	19.18
	12H	0.97	1.44	2.17	2.61	4.29	15.92	16.39	17.11	17.56	19.23
4H	2H	6.87	7.44	8.06	8.60	10.25	13.11	13.68	14.30	14.84	16.49
	3H	8.42	8.89	9.62	10.08	11.74	15.14	15.61	16.33	16.80	18.46
	4H	8.51	8.94	9.70	10.12	11.80	15.90	16.33	17.09	17.51	19.19
	6H	8.51	8.88	9.71	10.08	11.74	16.42	16.80	17.62	17.99	19.66
	8H	8.48	8.83	9.68	10.02	11.70	16.58	16.93	17.78	18.12	19.80
	12H	8.42	8.74	9.64	9.94	11.63	16.66	16.98	17.88	18.18	19.87
8H	4H	9.93	10.28	11.13	11.47	13.16	15.94	16.29	17.14	17.48	19.16
	6H	10.17	10.46	11.39	11.69	13.37	16.56	16.85	17.78	18.08	19.76
	8H	10.18	10.43	11.41	11.64	13.34	16.78	17.03	18.00	18.23	19.93
	12H	10.14	10.36	11.37	11.57	13.30	16.91	17.13	18.14	18.34	20.07
12H	4H	10.07	10.39	11.28	11.58	13.27	15.88	16.20	17.10	17.40	19.09
	6H	10.42	10.67	11.65	11.88	13.58	16.54	16.79	17.76	18.00	19.70
	8H	10.48	10.70	11.71	11.91	13.64	16.76	16.98	17.99	18.18	19.92