

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: P937743

Luminaire Tested: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937743
REPORT IS A COMBINATION OF REPORTS P933584 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-8-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

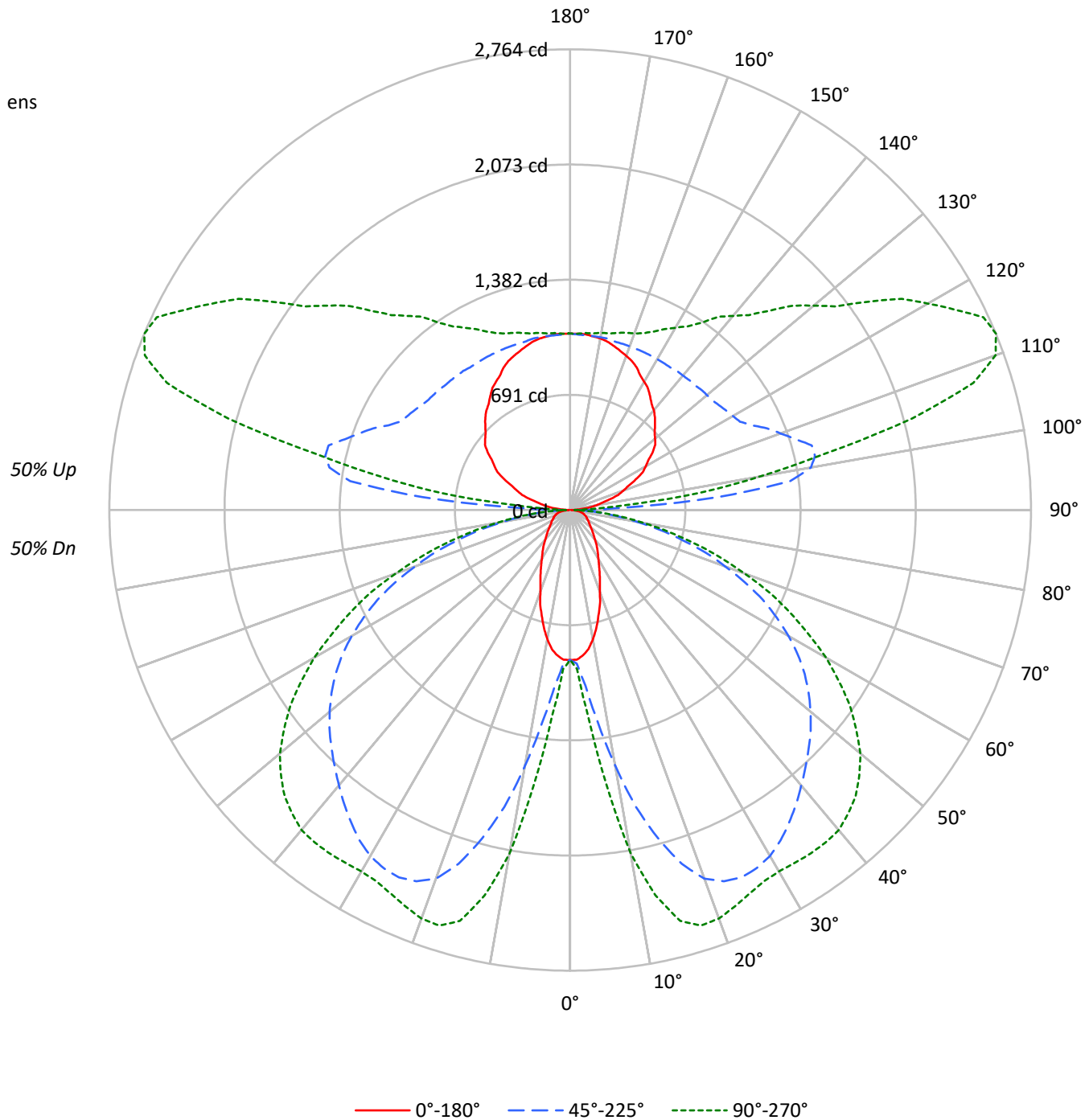
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13822.4 lumens
Efficiency: N/A
Efficacy: 100.5 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: General Diffuse

Input Watts (W): 137.6
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	0
RCR																		
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4171	4171	4171
5°	4075	4821	5607
10°	3696	7028	9295
15°	3141	9181	11224
20°	2557	10640	11439
25°	2134	11135	11207
30°	1799	11204	11185
35°	1591	11019	11475
40°	1386	10777	11774
45°	1255	10600	11820
50°	1151	10440	11624
55°	1103	10207	11109
60°	1129	9759	10295
65°	1174	9078	9178
70°	1251	7916	7753
75°	1387	6455	6051
80°	1514	4476	4077
85°	1346	2376	2087

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11820 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.3	0.8
10°-20°	515.4	3.7
20°-30°	901.6	6.5
30°-40°	1160.6	8.4
40°-50°	1296.3	9.4
50°-60°	1241.6	9.0
60°-70°	984.0	7.1
70°-80°	578.6	4.2
80°-90°	164.8	1.2
90°-100°	516.1	3.7
100°-110°	1356.8	9.8
110°-120°	1406.8	10.2
120°-130°	1128.4	8.2
130°-140°	885.4	6.4
140°-150°	679.6	4.9
150°-160°	489.4	3.5
160°-170°	299.5	2.2
170°-180°	101.2	0.7
0°-30°	1533.3	11.1
0°-40°	2693.9	19.5
0°-60°	5231.8	37.9
0°-90°	6959.2	50.3
90°-120°	3279.7	23.7
90°-150°	5973.1	43.2
90°-180°	6863.0	49.7
0°-180°	13822.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	899	899	899	899	899	
5°	876	940	1058	1197	1240	81
15°	656	1211	2041	2475	2553	183
25°	419	1373	2431	2538	2541	193
35°	283	1312	2290	2420	2515	177
45°	194	1046	2024	2318	2423	150
55°	139	665	1717	1995	2050	126
65°	110	353	1275	1434	1454	109
75°	81	217	700	769	772	85
85°	29	66	174	191	194	31
90°	7	20	54	27	27	8
95°	68	267	889	458	312	76
105°	244	370	1500	2277	2124	259
115°	434	527	1202	2397	2736	429
125°	604	677	1093	1847	2178	536
135°	720	792	1059	1491	1690	557
145°	835	888	1045	1272	1371	523
155°	944	970	1045	1148	1181	434
165°	1018	1032	1045	1086	1100	287
175°	1059	1059	1052	1066	1066	100
180°	1059	1059	1059	1059	1059	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1
2.5°	899.1	899.1	904.9	907.8	913.5	916.4	922.2	928.0	945.3	948.3	954.0
5°	875.9	887.5	925.1	939.5	980.0	1034.9	1058.1	1095.7	1173.7	1196.8	1211.2
7.5°	841.2	867.3	959.8	982.9	1084.1	1228.7	1289.3	1370.3	1494.6	1555.3	1604.5
10°	786.3	841.2	1006.0	1060.9	1225.8	1445.4	1558.2	1670.9	1858.8	1942.7	1974.5
12.5°	725.6	815.3	1055.2	1130.4	1367.4	1688.3	1824.2	1948.4	2162.4	2275.1	2292.5
15°	656.2	777.7	1101.4	1211.2	1517.7	1890.6	2040.9	2194.2	2393.7	2474.6	2494.8
17.5°	595.5	748.7	1144.8	1260.4	1633.3	2072.8	2225.9	2353.2	2515.1	2570.0	2584.4
20°	520.3	702.5	1173.7	1324.0	1754.8	2205.8	2353.2	2451.4	2561.4	2596.0	2601.8
22.5°	465.4	653.3	1191.1	1347.1	1835.7	2286.7	2411.0	2489.0	2564.2	2575.8	2578.7
25°	419.2	598.4	1188.2	1373.2	1905.1	2335.9	2431.3	2489.0	2532.4	2538.2	2538.2
27.5°	375.8	537.7	1176.6	1379.0	1957.1	2347.4	2422.6	2463.0	2483.3	2494.8	2494.8
30°	338.2	479.8	1147.7	1367.4	1980.3	2335.9	2396.5	2416.8	2437.0	2454.3	2463.0
32.5°	309.4	424.9	1104.3	1344.2	1983.1	2306.9	2350.3	2361.8	2390.8	2431.3	2445.7
35°	283.3	370.0	1055.2	1312.5	1965.8	2260.7	2289.6	2301.1	2358.9	2419.7	2439.9
37.5°	257.3	329.5	991.6	1257.5	1939.8	2205.8	2225.9	2246.2	2335.9	2408.1	2431.3
40°	231.3	294.8	916.4	1196.8	1899.3	2139.2	2156.6	2188.4	2306.9	2390.8	2413.9
42.5°	211.1	266.0	835.5	1133.3	1847.3	2064.1	2090.1	2136.3	2272.2	2361.8	2387.9
45°	193.7	237.0	748.7	1046.5	1780.8	1986.0	2023.6	2087.2	2231.8	2318.5	2341.6
47.5°	176.4	216.8	659.1	956.9	1708.5	1908.0	1957.1	2029.4	2176.8	2260.7	2280.9
50°	161.9	196.6	569.5	861.5	1630.4	1824.2	1882.0	1957.1	2107.5	2185.5	2211.5
52.5°	150.3	179.2	485.7	766.1	1540.8	1737.4	1803.9	1882.0	2023.6	2098.8	2116.1
55°	138.8	164.8	413.4	664.9	1448.3	1644.9	1717.2	1792.4	1931.1	1994.7	2006.3
57.5°	133.0	153.2	352.7	569.5	1350.0	1540.8	1621.8	1691.2	1821.3	1870.4	1882.0
60°	124.3	144.5	306.5	488.6	1243.1	1442.5	1511.9	1581.3	1691.2	1731.7	1740.3
62.5°	115.6	138.8	271.8	410.5	1133.3	1326.9	1396.3	1459.9	1552.4	1581.3	1592.9
65°	109.8	133.0	245.7	352.7	1020.5	1205.5	1274.9	1329.8	1405.0	1433.9	1439.6
67.5°	104.0	127.2	225.5	303.6	907.8	1084.1	1136.1	1188.2	1246.0	1274.9	1277.8
70°	95.4	121.5	208.2	268.9	792.1	945.3	988.7	1043.6	1089.9	1104.3	1113.0
72.5°	89.6	112.7	196.6	242.8	673.6	812.4	852.8	884.6	925.1	939.5	939.5
75°	81.0	101.2	185.0	216.8	552.2	664.9	699.6	731.4	763.2	769.0	760.3
77.5°	72.3	89.6	159.0	182.1	430.7	526.1	555.0	572.4	598.4	604.2	607.1
80°	60.7	78.1	124.3	141.6	312.2	387.3	407.6	422.1	445.2	445.2	451.0
82.5°	46.3	60.7	89.6	101.2	211.1	266.0	283.3	291.9	306.5	306.5	306.5
85°	28.9	37.6	57.8	66.5	127.2	161.9	173.5	176.4	187.9	190.8	190.8
87.5°	14.4	20.2	37.6	40.5	66.5	83.9	83.9	89.6	89.6	86.7	83.9
90°	7.1	12.8	18.4	19.9	31.3	46.4	54.0	48.0	36.0	27.0	27.0
92.5°	28.4	76.8	125.1	137.2	192.8	267.0	304.1	266.5	191.4	135.0	129.7
95°	68.2	156.6	245.0	267.2	474.4	750.7	888.9	793.2	601.8	458.3	442.1
97.5°	118.0	195.9	274.0	293.5	639.1	1099.8	1330.1	1269.7	1148.7	1058.0	1027.1
100°	156.3	227.0	297.8	315.5	698.9	1210.2	1465.9	1470.3	1479.1	1485.8	1448.9
102.5°	189.0	255.0	321.0	337.5	726.4	1244.9	1504.2	1581.2	1735.4	1851.0	1819.4
105°	244.5	300.3	356.2	370.2	746.8	1248.9	1499.9	1672.6	2018.1	2277.3	2260.3
107.5°	301.3	353.4	405.5	418.5	750.6	1193.3	1414.7	1655.6	2137.5	2498.9	2503.0
110°	339.6	386.7	433.7	445.5	744.9	1144.0	1343.6	1613.0	2151.7	2555.8	2573.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	377.3	422.1	467.0	478.2	745.1	1101.1	1279.0	1554.7	2106.0	2519.6	2546.8
115°	434.2	475.5	516.9	527.3	752.0	1051.7	1201.5	1467.1	1998.3	2396.7	2434.4
117.5°	490.3	527.9	565.4	574.8	766.0	1020.8	1148.2	1387.9	1867.3	2226.8	2268.6
120°	523.0	558.3	593.7	602.5	777.3	1010.4	1126.9	1345.9	1783.9	2112.4	2153.0
122.5°	554.9	590.6	626.3	635.2	793.7	1004.9	1110.5	1307.8	1702.2	1998.1	2038.1
125°	604.0	636.5	669.0	677.2	815.7	1000.4	1092.8	1260.4	1595.4	1846.7	1883.6
127.5°	643.8	676.6	709.4	717.6	837.7	997.9	1077.9	1221.7	1509.4	1725.2	1756.3
130°	665.0	700.4	735.7	744.6	853.8	999.4	1072.2	1200.2	1456.4	1648.5	1677.2
132.5°	687.1	722.4	757.8	766.7	866.9	1000.4	1067.2	1181.9	1411.1	1583.0	1608.8
135°	719.8	752.0	784.3	792.3	881.1	999.5	1058.7	1154.7	1346.7	1490.7	1512.9
137.5°	753.2	785.0	817.0	824.9	902.4	1005.7	1057.2	1138.4	1300.8	1422.5	1440.7
140°	780.8	810.2	839.6	847.0	915.4	1006.7	1052.3	1122.4	1262.7	1367.8	1384.8
142.5°	802.2	829.4	856.5	863.3	926.3	1010.3	1052.3	1113.9	1237.0	1329.5	1344.1
145°	834.9	858.6	882.3	888.2	940.6	1010.3	1045.2	1095.6	1196.3	1271.9	1282.9
147.5°	867.5	890.6	913.7	919.5	961.4	1017.3	1045.2	1084.8	1164.1	1223.5	1232.7
150°	888.9	909.7	930.6	935.8	972.3	1020.9	1045.2	1078.7	1145.6	1195.9	1203.3
152.5°	910.9	926.7	942.5	946.5	979.3	1023.2	1045.2	1073.8	1131.0	1173.8	1179.5
155°	943.6	955.3	967.0	969.9	995.0	1028.5	1045.2	1067.9	1113.4	1147.5	1151.2
157.5°	967.7	979.1	990.5	993.4	1010.6	1033.7	1045.2	1062.9	1098.2	1124.8	1127.4
160°	984.1	993.0	1001.8	1004.0	1017.8	1036.1	1045.2	1060.4	1090.7	1113.4	1115.0
162.5°	1000.4	1007.1	1013.8	1015.4	1025.3	1038.5	1045.2	1058.0	1083.5	1102.8	1104.2
165°	1018.2	1024.2	1030.2	1031.7	1036.2	1042.2	1045.2	1054.3	1072.7	1086.5	1088.0
167.5°	1034.5	1037.3	1040.2	1040.9	1044.7	1049.7	1052.3	1058.3	1070.3	1079.3	1079.9
170°	1045.2	1048.0	1050.9	1051.6	1051.9	1052.1	1052.3	1058.3	1070.3	1079.3	1079.3
172.5°	1050.9	1051.5	1052.1	1052.3	1052.3	1052.3	1052.3	1057.1	1066.5	1073.6	1073.1
175°	1058.7	1058.7	1058.7	1058.7	1056.6	1053.7	1052.3	1055.3	1061.3	1065.8	1065.8
177.5°	1058.7	1058.7	1058.7	1058.7	1057.1	1054.8	1053.7	1056.1	1060.8	1064.4	1063.8
180°	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	899.1	899.1
2.5°	959.8	954.0
5°	1234.4	1240.2
7.5°	1662.2	1659.4
10°	2067.0	2093.0
12.5°	2361.8	2367.6
15°	2541.1	2552.6
17.5°	2610.5	2613.4
20°	2613.4	2607.6
22.5°	2581.6	2575.8
25°	2544.0	2541.1
27.5°	2509.3	2512.2
30°	2494.8	2503.5
32.5°	2494.8	2509.3
35°	2500.6	2515.1
37.5°	2497.7	2515.1
40°	2486.2	2506.4
42.5°	2454.3	2468.9
45°	2405.2	2422.6
47.5°	2341.6	2353.2
50°	2260.7	2272.2
52.5°	2159.5	2162.4
55°	2038.0	2049.7
57.5°	1908.0	1910.9
60°	1763.4	1772.1
62.5°	1610.2	1610.2
65°	1448.3	1454.2
67.5°	1280.7	1295.1
70°	1110.1	1113.0
72.5°	942.4	942.4
75°	769.0	771.9
77.5°	604.2	604.2
80°	448.1	451.0
82.5°	309.4	315.1
85°	193.7	193.7
87.5°	89.6	81.0
90°	27.0	27.0
92.5°	108.2	86.7
95°	377.0	311.9
97.5°	903.2	779.5
100°	1301.4	1153.9
102.5°	1693.1	1566.7
105°	2192.4	2124.5
107.5°	2519.5	2535.9
110°	2644.2	2714.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2655.3	2764.0
115°	2584.9	2735.6
117.5°	2435.6	2602.7
120°	2315.4	2477.7
122.5°	2198.2	2358.2
125°	2031.0	2178.5
127.5°	1880.7	2005.2
130°	1792.1	1907.1
132.5°	1711.8	1814.7
135°	1601.7	1690.4
137.5°	1513.3	1585.9
140°	1452.6	1520.5
142.5°	1402.5	1460.9
145°	1327.1	1371.3
147.5°	1269.3	1306.0
150°	1232.9	1262.7
152.5°	1201.8	1224.2
155°	1166.1	1180.9
157.5°	1137.8	1148.2
160°	1121.0	1126.9
162.5°	1109.9	1115.6
165°	1094.0	1099.9
167.5°	1082.4	1085.0
170°	1079.3	1079.3
172.5°	1070.9	1068.7
175°	1065.8	1065.8
177.5°	1061.3	1058.7
180°	1058.7	1058.7



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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	6.00	6.90	6.95	7.87	9.13	19.18	20.08	20.12	21.05	22.31
	3H	6.71	7.52	7.67	8.50	9.78	21.02	21.83	21.98	22.81	24.10
	4H	7.01	7.78	7.98	8.76	10.05	21.67	22.44	22.64	23.42	24.71
	6H	7.26	7.97	8.24	8.96	10.27	22.10	22.81	23.08	23.80	25.10
	8H	7.33	8.01	8.32	9.01	10.32	22.22	22.90	23.21	23.90	25.21
	12H	7.35	7.99	8.34	8.99	10.32	22.29	22.94	23.29	23.93	25.26
4H	2H	13.22	13.99	14.20	14.97	16.26	19.46	20.23	20.43	21.21	22.50
	3H	14.79	15.44	15.78	16.45	17.75	21.51	22.15	22.49	23.16	24.47
	4H	14.89	15.48	15.88	16.48	17.81	22.28	22.87	23.27	23.87	25.20
	6H	14.90	15.41	15.91	16.44	17.77	22.82	23.33	23.83	24.35	25.68
	8H	14.88	15.36	15.89	16.38	17.72	22.98	23.46	23.99	24.48	25.82
	12H	14.84	15.27	15.87	16.30	17.65	23.08	23.51	24.11	24.54	25.89
8H	4H	16.34	16.81	17.35	17.83	19.18	22.34	22.82	23.35	23.84	25.18
	6H	16.58	16.98	17.61	18.04	19.38	22.97	23.37	24.01	24.43	25.77
	8H	16.60	16.95	17.64	17.99	19.36	23.19	23.54	24.23	24.59	25.95
	12H	16.57	16.88	17.62	17.92	19.32	23.34	23.65	24.39	24.69	26.09
12H	4H	16.48	16.91	17.51	17.95	19.30	22.29	22.73	23.32	23.76	25.11
	6H	16.84	17.19	17.88	18.24	19.60	22.95	23.30	24.00	24.35	25.71
	8H	16.91	17.22	17.96	18.26	19.66	23.19	23.49	24.23	24.54	25.94