

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: P937817

Luminaire Tested: SQ4-FB-125U-050D-840-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937817
REPORT IS A COMBINATION OF REPORTS P933589 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-050D-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

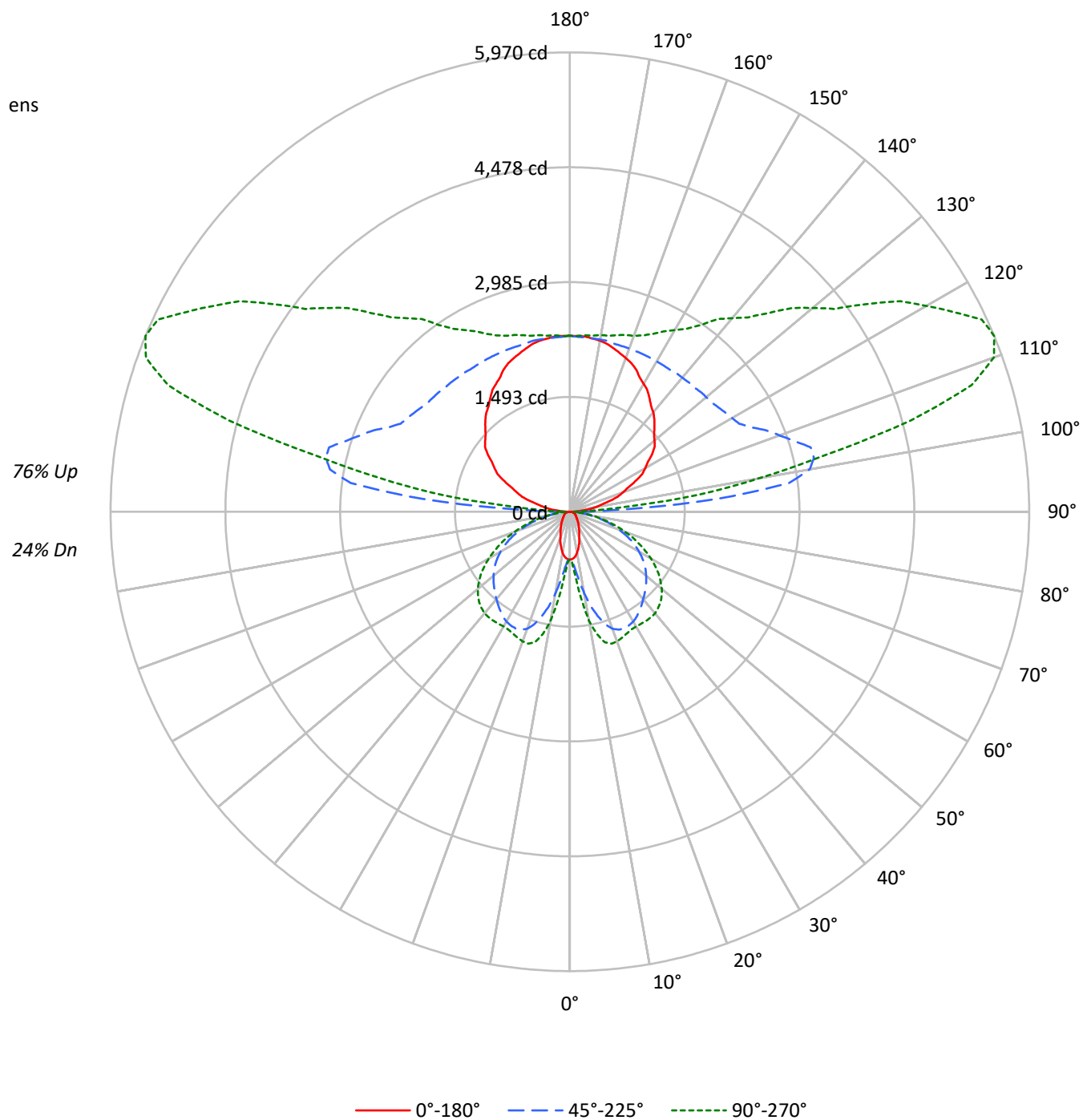
Lumens per Lamp: N/A
Luminaire Lumens: 19614.8 lumens
Efficiency: N/A
Efficacy: 137.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 142.8
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	22	20	19
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1912	1912	1912
5°	1869	2211	2570
10°	1696	3223	4261
15°	1442	4213	5146
20°	1174	4883	5244
25°	980	5111	5138
30°	827	5145	5128
35°	731	5060	5261
40°	638	4951	5398
45°	578	4871	5419
50°	530	4799	5329
55°	508	4694	5093
60°	521	4490	4720
65°	544	4179	4207
70°	580	3647	3554
75°	644	2976	2774
80°	711	2066	1869
85°	645	1098	957

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 90°

Luminance: 5679 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.0	0.4
10°-20°	354.5	1.8
20°-30°	620.0	3.2
30°-40°	798.1	4.1
40°-50°	891.5	4.5
50°-60°	853.8	4.4
60°-70°	676.7	3.4
70°-80°	397.9	2.0
80°-90°	119.3	0.6
90°-100°	1114.6	5.7
100°-110°	2930.4	14.9
110°-120°	3038.5	15.5
120°-130°	2437.2	12.4
130°-140°	1912.4	9.7
140°-150°	1467.8	7.5
150°-160°	1057.1	5.4
160°-170°	646.8	3.3
170°-180°	218.5	1.1
0°-30°	1054.4	5.4
0°-40°	1852.5	9.4
0°-60°	3597.8	18.3
0°-90°	4791.7	24.4
90°-120°	7083.4	36.1
90°-150°	12900.8	65.8
90°-180°	14823.0	75.6
0°-180°	19614.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	618	618	618	618	618	
5°	602	646	728	823	853	56
15°	451	833	1404	1702	1755	126
25°	288	944	1672	1746	1748	133
35°	195	902	1574	1664	1730	122
45°	133	720	1392	1594	1666	103
55°	95	457	1181	1372	1410	87
65°	76	243	877	986	1000	75
75°	56	149	481	529	531	58
85°	20	46	119	131	133	21
90°	15	43	117	58	58	14
95°	147	577	1920	990	674	164
105°	528	800	3240	4918	4589	560
115°	938	1139	2595	5176	5908	926
125°	1304	1462	2360	3988	4705	1158
135°	1555	1711	2287	3220	3651	1203
145°	1803	1918	2258	2747	2962	1130
155°	2038	2095	2258	2478	2550	936
165°	2199	2228	2258	2346	2376	621
175°	2287	2287	2273	2302	2302	217
180°	2287	2287	2287	2287	2287	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3
2.5°	618.3	618.3	622.2	624.2	628.2	630.1	634.2	638.1	650.1	652.1	656.0
5°	602.4	610.3	636.2	646.1	673.9	711.7	727.6	753.4	807.1	823.0	833.0
7.5°	578.5	596.4	660.0	675.9	745.5	844.9	886.6	942.4	1027.8	1069.5	1103.3
10°	540.7	578.5	691.8	729.6	842.9	994.0	1071.5	1149.0	1278.3	1336.0	1357.8
12.5°	498.9	560.6	725.6	777.3	940.3	1161.0	1254.5	1339.9	1487.0	1564.6	1576.5
15°	451.3	534.8	757.4	833.0	1043.7	1300.1	1403.6	1508.9	1646.1	1701.7	1715.7
17.5°	409.5	514.8	787.2	866.8	1123.3	1425.4	1530.7	1618.2	1729.6	1767.3	1777.3
20°	357.9	483.1	807.1	910.5	1206.7	1516.9	1618.2	1685.8	1761.4	1785.2	1789.2
22.5°	320.1	449.2	819.1	926.4	1262.4	1572.5	1658.0	1711.7	1763.4	1771.3	1773.3
25°	288.3	411.5	817.1	944.3	1310.1	1606.3	1671.9	1711.7	1741.4	1745.5	1745.5
27.5°	258.5	369.8	809.1	948.3	1345.9	1614.3	1666.0	1693.7	1707.7	1715.7	1715.7
30°	232.6	330.0	789.2	940.3	1361.8	1606.3	1648.1	1662.0	1675.8	1687.8	1693.7
32.5°	212.7	292.3	759.4	924.4	1363.7	1586.4	1616.3	1624.2	1644.0	1671.9	1681.9
35°	194.8	254.5	725.6	902.5	1351.9	1554.6	1574.5	1582.5	1622.2	1664.0	1677.8
37.5°	177.0	226.6	681.9	864.8	1333.9	1516.9	1530.7	1544.6	1606.3	1656.0	1671.9
40°	159.1	202.7	630.1	823.0	1306.1	1471.1	1483.1	1504.9	1586.4	1644.0	1659.9
42.5°	145.1	182.9	574.5	779.3	1270.4	1419.5	1437.3	1469.2	1562.5	1624.2	1642.1
45°	133.2	163.0	514.8	719.7	1224.6	1365.7	1391.6	1435.4	1534.8	1594.3	1610.2
47.5°	121.2	149.1	453.3	658.0	1174.9	1312.1	1345.9	1395.6	1496.9	1554.6	1568.5
50°	111.3	135.2	391.6	592.4	1121.2	1254.5	1294.2	1345.9	1449.3	1502.9	1520.8
52.5°	103.3	123.3	333.9	526.8	1059.6	1194.8	1240.5	1294.2	1391.6	1443.3	1455.2
55°	95.4	113.3	284.2	457.2	996.0	1131.2	1180.9	1232.5	1328.0	1371.7	1379.6
57.5°	91.5	105.3	242.6	391.6	928.4	1059.6	1115.3	1163.0	1252.4	1286.3	1294.2
60°	85.5	99.4	210.7	336.0	854.8	992.1	1039.8	1087.4	1163.0	1190.8	1196.8
62.5°	79.5	95.4	186.8	282.3	779.3	912.5	960.2	1003.9	1067.5	1087.4	1095.4
65°	75.6	91.5	168.9	242.6	701.8	829.0	876.8	914.5	966.2	986.0	990.0
67.5°	71.5	87.4	155.0	208.8	624.2	745.5	781.3	817.1	856.8	876.8	878.7
70°	65.6	83.5	143.2	184.9	544.7	650.1	679.9	717.7	749.5	759.4	765.4
72.5°	61.7	77.6	135.2	167.0	463.2	558.6	586.5	608.3	636.2	646.1	646.1
75°	55.6	69.6	127.3	149.1	379.7	457.2	481.1	503.0	524.8	528.8	522.8
77.5°	49.7	61.7	109.4	125.3	296.2	361.8	381.7	393.6	411.5	415.5	417.4
80°	41.8	53.6	85.5	97.4	214.7	266.4	280.3	290.3	306.2	306.2	310.1
82.5°	31.8	41.8	61.7	69.6	145.1	182.9	194.8	200.8	210.7	210.7	210.7
85°	19.9	25.9	39.7	45.7	87.4	111.3	119.3	121.2	129.2	131.2	131.2
87.5°	10.0	13.9	25.9	27.9	45.7	57.7	57.7	61.7	61.7	59.7	57.7
90°	15.3	27.6	39.9	43.0	67.5	100.2	116.6	103.6	77.8	58.3	58.3
92.5°	61.4	165.7	270.1	296.2	416.4	576.7	656.8	575.6	413.3	291.6	280.0
95°	147.3	338.3	529.3	577.0	1024.6	1621.4	1919.8	1713.1	1299.8	989.9	954.7
97.5°	254.7	423.2	591.7	633.8	1380.1	2375.3	2872.8	2742.2	2481.0	2285.0	2218.2
100°	337.6	490.4	643.2	681.4	1509.6	2613.9	3165.9	3175.5	3194.6	3208.9	3129.3
102.5°	408.2	550.8	693.3	728.9	1568.9	2688.8	3248.8	3415.2	3748.1	3997.7	3929.6
105°	527.9	648.6	769.4	799.6	1612.9	2697.3	3239.6	3612.6	4358.9	4918.5	4881.8
107.5°	650.7	763.2	875.8	903.9	1621.1	2577.4	3055.5	3575.9	4616.6	5397.2	5406.1
110°	733.6	835.2	936.8	962.2	1608.8	2470.9	2902.0	3483.8	4647.4	5520.1	5558.3

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	814.9	911.7	1008.6	1032.8	1609.3	2378.0	2762.3	3357.8	4548.7	5441.8	5500.5
115°	937.6	1026.9	1116.3	1138.7	1624.2	2271.4	2595.1	3168.7	4315.9	5176.3	5257.6
117.5°	1058.9	1140.1	1221.3	1241.5	1654.3	2204.7	2480.0	2997.7	4033.0	4809.5	4899.7
120°	1129.5	1205.9	1282.3	1301.4	1678.9	2182.3	2433.9	2907.0	3853.0	4562.5	4650.1
122.5°	1198.5	1275.6	1352.7	1371.9	1714.2	2170.5	2398.7	2824.6	3676.4	4315.4	4401.8
125°	1304.5	1374.7	1445.0	1462.5	1761.8	2160.8	2360.2	2722.0	3445.7	3988.5	4068.1
127.5°	1390.4	1461.4	1532.3	1550.0	1809.3	2155.1	2328.0	2638.7	3260.0	3726.0	3793.2
130°	1436.5	1512.8	1589.2	1608.3	1844.1	2158.6	2315.8	2592.3	3145.5	3560.4	3622.4
132.5°	1484.0	1560.3	1636.8	1655.9	1872.3	2160.8	2305.0	2552.6	3047.8	3419.2	3474.8
135°	1554.6	1624.2	1693.7	1711.1	1903.0	2158.8	2286.6	2494.0	2908.7	3219.7	3267.6
137.5°	1626.7	1695.6	1764.5	1781.7	1948.9	2172.0	2283.6	2458.8	2809.4	3072.3	3111.5
140°	1686.5	1749.9	1813.4	1829.3	1977.1	2174.2	2272.8	2424.2	2727.0	2954.1	2990.8
142.5°	1732.6	1791.2	1849.9	1864.6	2000.6	2182.1	2272.8	2405.8	2671.8	2871.3	2902.8
145°	1803.2	1854.4	1905.6	1918.3	2031.3	2182.1	2257.5	2366.3	2583.8	2746.9	2770.8
147.5°	1873.7	1923.5	1973.3	1985.8	2076.4	2197.1	2257.5	2343.0	2514.3	2642.6	2662.4
150°	1919.8	1964.8	2009.9	2021.2	2099.9	2204.9	2257.5	2329.8	2474.3	2582.7	2598.7
152.5°	1967.4	2001.5	2035.7	2044.2	2115.3	2210.1	2257.5	2319.2	2442.6	2535.2	2547.4
155°	2037.9	2063.2	2088.4	2094.8	2149.0	2221.3	2257.5	2306.6	2404.8	2478.4	2486.4
157.5°	2090.2	2114.7	2139.3	2145.4	2182.8	2232.6	2257.5	2295.6	2372.0	2429.3	2434.9
160°	2125.5	2144.6	2163.7	2168.5	2198.1	2237.7	2257.5	2290.2	2355.7	2404.8	2408.1
162.5°	2160.8	2175.1	2189.4	2193.0	2214.5	2243.2	2257.5	2285.1	2340.4	2381.8	2384.8
165°	2199.1	2212.0	2225.0	2228.2	2238.0	2251.0	2257.5	2277.2	2316.8	2346.4	2349.7
167.5°	2234.5	2240.6	2246.7	2248.2	2256.4	2267.4	2272.8	2285.7	2311.6	2331.1	2332.5
170°	2257.5	2263.6	2269.7	2271.2	2271.7	2272.4	2272.8	2285.7	2311.6	2331.1	2331.1
172.5°	2269.7	2271.1	2272.5	2272.8	2272.8	2272.8	2272.8	2283.1	2303.5	2318.8	2317.7
175°	2286.6	2286.6	2286.6	2286.6	2282.0	2275.9	2272.8	2279.3	2292.3	2301.9	2301.9
177.5°	2286.6	2286.6	2286.6	2286.6	2283.1	2278.2	2275.9	2281.0	2291.2	2298.9	2297.5
180°	2286.6	2286.6	2286.6	2286.6	2286.6	2286.6	2286.6	2286.6	2286.6	2286.6	2286.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	618.3	618.3
2.5°	660.0	656.0
5°	848.9	852.8
7.5°	1143.1	1141.1
10°	1421.4	1439.3
12.5°	1624.2	1628.1
15°	1747.5	1755.4
17.5°	1795.2	1797.2
20°	1797.2	1793.2
22.5°	1775.2	1771.3
25°	1749.5	1747.5
27.5°	1725.5	1727.6
30°	1715.7	1721.6
32.5°	1715.7	1725.5
35°	1719.6	1729.6
37.5°	1717.6	1729.6
40°	1709.6	1723.6
42.5°	1687.8	1697.8
45°	1654.0	1666.0
47.5°	1610.2	1618.2
50°	1554.6	1562.5
52.5°	1485.1	1487.0
55°	1401.6	1409.5
57.5°	1312.1	1314.0
60°	1212.7	1218.6
62.5°	1107.4	1107.4
65°	996.0	1000.0
67.5°	880.7	890.6
70°	763.4	765.4
72.5°	648.1	648.1
75°	528.8	530.8
77.5°	415.5	415.5
80°	308.2	310.1
82.5°	212.7	216.7
85°	133.2	133.2
87.5°	61.7	55.6
90°	58.3	58.3
92.5°	233.6	187.2
95°	814.2	673.7
97.5°	1950.8	1683.5
100°	2810.8	2492.2
102.5°	3656.7	3383.9
105°	4735.2	4588.6
107.5°	5441.6	5477.1
110°	5711.0	5863.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5735.0	5969.7
115°	5583.0	5908.3
117.5°	5260.5	5621.3
120°	5000.7	5351.2
122.5°	4747.6	5093.4
125°	4386.6	4705.2
127.5°	4062.0	4330.7
130°	3870.7	4119.0
132.5°	3697.1	3919.4
135°	3459.2	3650.9
137.5°	3268.4	3425.3
140°	3137.5	3284.1
142.5°	3029.0	3155.2
145°	2866.3	2961.8
147.5°	2741.5	2820.6
150°	2663.0	2727.1
152.5°	2595.8	2644.2
155°	2518.5	2550.5
157.5°	2457.5	2480.0
160°	2421.0	2433.9
162.5°	2397.1	2409.3
165°	2362.6	2375.6
167.5°	2337.9	2343.3
170°	2331.1	2331.1
172.5°	2312.8	2308.1
175°	2301.9	2301.9
177.5°	2292.1	2286.6
180°	2286.6	2286.6

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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	0.25	0.94	1.40	2.07	3.67	13.44	14.13	14.59	15.26	16.86
	3H	0.94	1.56	2.09	2.70	4.31	15.27	15.89	16.42	17.03	18.64
	4H	1.23	1.82	2.39	2.96	4.57	15.91	16.50	17.07	17.64	19.26
	6H	1.47	2.01	2.64	3.16	4.78	16.34	16.88	17.51	18.02	19.65
	8H	1.53	2.05	2.71	3.21	4.83	16.46	16.97	17.63	18.13	19.75
	12H	1.55	2.03	2.72	3.19	4.83	16.52	17.01	17.70	18.16	19.80
4H	2H	7.45	8.04	8.62	9.18	10.79	13.69	14.28	14.86	15.42	17.04
	3H	9.00	9.49	10.18	10.66	12.29	15.73	16.22	16.90	17.39	19.01
	4H	9.09	9.54	10.26	10.70	12.34	16.49	16.94	17.67	18.10	19.74
	6H	9.09	9.47	10.27	10.66	12.29	17.02	17.41	18.20	18.59	20.22
	8H	9.06	9.42	10.24	10.59	12.24	17.18	17.54	18.36	18.72	20.37
	12H	9.01	9.34	10.20	10.52	12.17	17.27	17.60	18.47	18.78	20.44
8H	4H	10.52	10.88	11.70	12.05	13.71	16.53	16.89	17.71	18.07	19.72
	6H	10.75	11.05	11.95	12.27	13.91	17.16	17.46	18.36	18.67	20.32
	8H	10.77	11.03	11.97	12.22	13.89	17.38	17.64	18.58	18.83	20.50
	12H	10.73	10.96	11.94	12.15	13.85	17.52	17.75	18.73	18.94	20.64
12H	4H	10.66	10.98	11.85	12.17	13.82	16.48	16.81	17.67	17.99	19.64
	6H	11.01	11.27	12.22	12.46	14.13	17.14	17.40	18.35	18.59	20.26
	8H	11.07	11.30	12.28	12.49	14.19	17.36	17.59	18.57	18.78	20.48