

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: P936913

Luminaire Tested: SQ4-FB-050U-125D-835-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936913
REPORT IS A COMBINATION OF REPORTS P933464 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

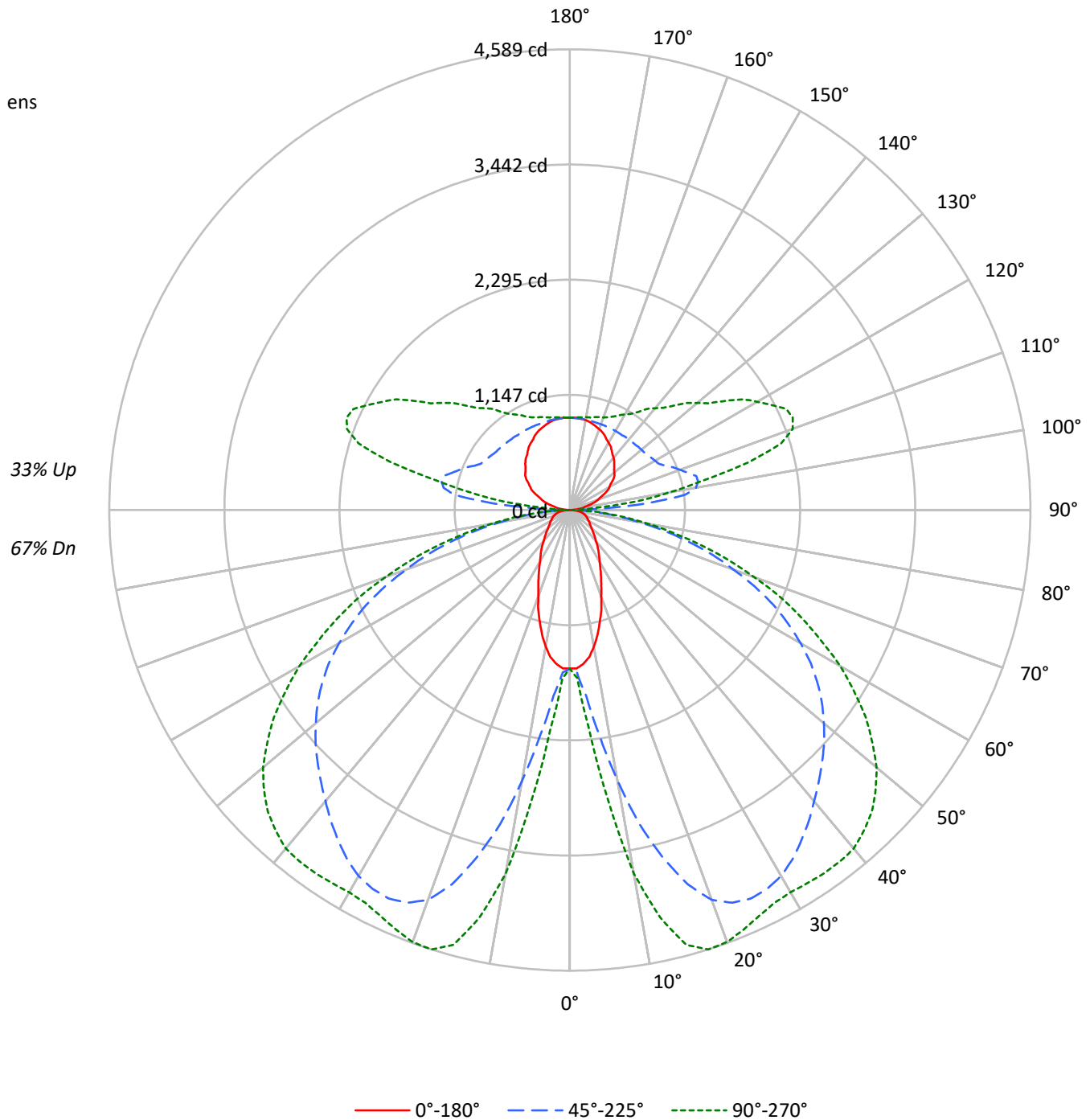
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18190.0 lumens
Efficiency: N/A
Efficacy: 108.3 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-Direct

Input Watts (W): 168
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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67	67	67	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55	55	55	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45	45	45	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37	37	37	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31	31	31	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26	26	26	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23	23	23	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20	20	20	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17	17	17	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15	15	15	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14	14	14	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4884	4884	4884
5°	4772	5646	6564
10°	4331	8232	10882
15°	3682	10757	13140
20°	2999	12469	13392
25°	2502	13051	13120
30°	2111	13137	13095
35°	1868	12922	13434
40°	1628	12643	13784
45°	1475	12439	13838
50°	1355	12256	13609
55°	1299	11987	13005
60°	1331	11466	12053
65°	1387	10671	10744
70°	1481	9312	9077
75°	1647	7600	7083
80°	1813	5277	4773
85°	1646	2805	2443

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13838 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.2	1.1
10°-20°	905.2	5.0
20°-30°	1583.3	8.7
30°-40°	2038.1	11.2
40°-50°	2276.5	12.5
50°-60°	2180.4	12.0
60°-70°	1728.0	9.5
70°-80°	1016.1	5.6
80°-90°	285.8	1.6
90°-100°	449.1	2.5
100°-110°	1180.7	6.5
110°-120°	1224.2	6.7
120°-130°	982.0	5.4
130°-140°	770.5	4.2
140°-150°	591.4	3.3
150°-160°	425.9	2.3
160°-170°	260.6	1.4
170°-180°	88.0	0.5
0°-30°	2692.7	14.8
0°-40°	4730.8	26.0
0°-60°	9187.7	50.5
0°-90°	12217.5	67.2
90°-120°	2854.0	15.7
90°-150°	5197.9	28.6
90°-180°	5972.0	32.8
0°-180°	18190.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1579	1579	1579	1579	1579	
5°	1538	1650	1858	2102	2178	142
15°	1152	2127	3584	4346	4483	321
25°	736	2411	4270	4457	4462	339
35°	498	2305	4021	4249	4417	311
45°	340	1838	3554	4072	4254	263
55°	244	1168	3016	3503	3599	222
65°	193	619	2239	2518	2554	191
75°	142	381	1229	1350	1356	149
85°	51	117	305	335	340	54
90°	6	17	47	24	24	9
95°	59	232	774	399	271	66
105°	213	322	1305	1982	1849	226
115°	378	459	1046	2086	2381	373
125°	526	589	951	1607	1896	467
135°	626	689	921	1297	1471	485
145°	726	773	910	1107	1193	455
155°	821	844	910	999	1028	377
165°	886	898	910	945	957	250
175°	921	921	916	928	928	87
180°	921	921	921	921	921	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9
2.5°	1578.9	1578.9	1589.0	1594.1	1604.2	1609.3	1619.5	1629.6	1660.1	1665.2	1675.3
5°	1538.2	1558.5	1624.5	1649.9	1721.0	1817.5	1858.1	1924.1	2061.1	2101.8	2127.1
7.5°	1477.3	1523.0	1685.5	1726.1	1903.8	2157.6	2264.2	2406.4	2624.7	2731.3	2817.6
10°	1380.9	1477.3	1766.7	1863.1	2152.5	2538.3	2736.3	2934.3	3264.3	3411.5	3467.4
12.5°	1274.3	1431.6	1853.0	1985.0	2401.3	2964.8	3203.4	3421.7	3797.4	3995.4	4025.8
15°	1152.4	1365.6	1934.2	2127.1	2665.3	3320.2	3584.1	3853.2	4203.5	4345.7	4381.2
17.5°	1045.8	1314.9	2010.4	2213.4	2868.3	3640.0	3909.1	4132.4	4416.7	4513.2	4538.6
20°	913.8	1233.6	2061.1	2325.1	3081.6	3873.5	4132.4	4305.0	4498.0	4558.9	4569.0
22.5°	817.3	1147.3	2091.6	2365.7	3223.7	4015.7	4234.0	4371.0	4503.0	4523.3	4528.4
25°	736.1	1050.9	2086.5	2411.4	3345.5	4102.0	4269.5	4371.0	4447.2	4457.3	4457.3
27.5°	660.0	944.3	2066.2	2421.6	3436.9	4122.3	4254.3	4325.3	4360.9	4381.2	4381.2
30°	594.0	842.7	2015.4	2401.3	3477.5	4102.0	4208.6	4244.1	4279.7	4310.1	4325.3
32.5°	543.2	746.3	1939.3	2360.7	3482.6	4051.2	4127.4	4147.7	4198.4	4269.5	4294.9
35°	497.5	649.8	1853.0	2304.8	3452.2	3970.0	4020.7	4041.1	4142.6	4249.2	4284.7
37.5°	451.8	578.7	1741.3	2208.4	3406.5	3873.5	3909.1	3944.6	4102.0	4228.9	4269.5
40°	406.1	517.8	1609.3	2101.8	3335.4	3756.8	3787.2	3843.1	4051.2	4198.4	4239.0
42.5°	370.6	467.1	1467.2	1990.1	3244.0	3624.8	3670.5	3751.7	3990.3	4147.7	4193.4
45°	340.1	416.3	1314.9	1837.8	3127.2	3487.7	3553.7	3665.4	3919.2	4071.5	4112.1
47.5°	309.7	380.8	1157.5	1680.4	3000.3	3350.6	3436.9	3563.8	3822.8	3970.0	4005.5
50°	284.3	345.2	1000.1	1512.9	2863.3	3203.4	3304.9	3436.9	3700.9	3838.0	3883.7
52.5°	264.0	314.8	852.9	1345.3	2705.9	3051.1	3167.9	3304.9	3553.7	3685.7	3716.1
55°	243.7	289.4	726.0	1167.6	2543.4	2888.6	3015.6	3147.6	3391.2	3502.9	3523.2
57.5°	233.5	269.1	619.4	1000.1	2370.8	2705.9	2848.0	2969.9	3198.3	3284.6	3304.9
60°	218.3	253.8	538.1	858.0	2183.0	2533.3	2655.1	2777.0	2969.9	3040.9	3056.2
62.5°	203.1	243.7	477.2	720.9	1990.1	2330.2	2452.0	2563.7	2726.2	2777.0	2797.3
65°	192.9	233.5	431.5	619.4	1792.1	2117.0	2238.8	2335.3	2467.3	2518.0	2528.2
67.5°	182.8	223.4	396.0	533.1	1594.1	1903.8	1995.1	2086.5	2188.1	2238.8	2243.9
70°	167.5	213.2	365.5	472.1	1391.0	1660.1	1736.2	1832.7	1913.9	1939.3	1954.5
72.5°	157.4	198.0	345.2	426.4	1182.9	1426.6	1497.6	1553.5	1624.5	1649.9	1649.9
75°	142.1	177.7	324.9	380.8	969.6	1167.6	1228.6	1284.4	1340.2	1350.4	1335.2
77.5°	126.9	157.4	279.2	319.8	756.4	924.0	974.7	1005.2	1050.9	1061.0	1066.1
80°	106.6	137.1	218.3	248.8	548.3	680.3	715.8	741.2	781.8	781.8	792.0
82.5°	81.2	106.6	157.4	177.7	370.6	467.1	497.5	512.7	538.1	538.1	538.1
85°	50.8	66.0	101.5	116.8	223.4	284.3	304.6	309.7	330.0	335.1	335.1
87.5°	25.4	35.5	66.0	71.1	116.8	147.2	147.2	157.4	157.4	152.3	147.2
90°	6.2	11.1	16.1	17.3	27.2	40.4	47.0	41.8	31.3	23.5	23.5
92.5°	24.7	66.7	108.8	119.3	167.7	232.3	264.6	231.9	166.5	117.5	112.8
95°	59.4	136.3	213.3	232.5	412.8	653.3	773.5	690.2	523.7	398.8	384.6
97.5°	102.6	170.5	238.4	255.4	556.1	957.0	1157.5	1104.9	999.6	920.7	893.8
100°	136.0	197.6	259.1	274.5	608.2	1053.1	1275.6	1279.4	1287.1	1292.9	1260.8
102.5°	164.5	221.9	279.3	293.7	632.1	1083.4	1309.0	1376.0	1510.1	1610.7	1583.2
105°	212.7	261.3	309.9	322.1	649.8	1086.8	1305.3	1455.6	1756.2	1981.7	1966.9
107.5°	262.2	307.5	352.9	364.2	653.2	1038.5	1231.1	1440.8	1860.2	2174.7	2178.3
110°	295.6	336.5	377.5	387.7	648.2	995.6	1169.3	1403.7	1872.5	2224.1	2239.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	328.3	367.3	406.3	416.1	648.4	958.1	1113.0	1352.9	1832.7	2192.6	2216.2
115°	377.8	413.8	449.8	458.8	654.4	915.2	1045.6	1276.7	1738.9	2085.6	2118.4
117.5°	426.6	459.3	492.0	500.2	666.5	888.3	999.2	1207.8	1624.9	1937.8	1974.1
120°	455.1	485.9	516.6	524.3	676.4	879.3	980.7	1171.3	1552.4	1838.3	1873.6
122.5°	482.9	514.0	545.0	552.8	690.7	874.5	966.4	1138.0	1481.3	1738.7	1773.5
125°	525.6	553.9	582.2	589.3	709.9	870.6	951.0	1096.8	1388.3	1607.0	1639.1
127.5°	560.2	588.8	617.4	624.5	729.0	868.3	938.0	1063.2	1313.5	1501.3	1528.4
130°	578.8	609.6	640.3	648.0	743.0	869.7	933.1	1044.5	1267.4	1434.5	1459.5
132.5°	597.9	628.7	659.5	667.2	754.4	870.6	928.7	1028.5	1228.0	1377.6	1400.0
135°	626.4	654.4	682.4	689.4	766.7	869.8	921.3	1004.9	1172.0	1297.3	1316.6
137.5°	655.4	683.2	711.0	717.9	785.3	875.2	920.1	990.7	1132.0	1237.9	1253.7
140°	679.5	705.1	730.6	737.0	796.6	876.0	915.7	976.7	1098.8	1190.3	1205.1
142.5°	698.1	721.7	745.4	751.3	806.1	879.2	915.7	969.3	1076.5	1156.9	1169.6
145°	726.5	747.1	767.7	772.9	818.5	879.2	909.6	953.4	1041.1	1106.8	1116.4
147.5°	755.0	775.0	795.1	800.1	836.6	885.3	909.6	944.1	1013.1	1064.8	1072.8
150°	773.5	791.6	809.8	814.3	846.1	888.4	909.6	938.7	996.9	1040.6	1047.1
152.5°	792.7	806.4	820.2	823.6	852.3	890.5	909.6	934.5	984.2	1021.5	1026.4
155°	821.1	831.3	841.5	844.0	865.9	895.0	909.6	929.4	968.9	998.6	1001.8
157.5°	842.2	852.1	861.9	864.4	879.5	899.6	909.6	925.0	955.7	978.8	981.1
160°	856.4	864.1	871.8	873.7	885.7	901.6	909.6	922.8	949.1	968.9	970.2
162.5°	870.6	876.4	882.2	883.6	892.3	903.8	909.6	920.7	942.9	959.6	960.8
165°	886.1	891.3	896.5	897.8	901.7	907.0	909.6	917.6	933.5	945.4	946.7
167.5°	900.3	902.7	905.2	905.8	909.1	913.5	915.7	920.9	931.4	939.2	939.8
170°	909.6	912.0	914.5	915.1	915.3	915.6	915.7	920.9	931.4	939.2	939.2
172.5°	914.5	915.0	915.6	915.7	915.7	915.7	915.7	919.8	928.1	934.3	933.8
175°	921.3	921.3	921.3	921.3	919.4	916.9	915.7	918.3	923.6	927.5	927.5
177.5°	921.3	921.3	921.3	921.3	919.9	918.0	917.0	919.1	923.2	926.3	925.7
180°	921.3	921.3	921.3	921.3	921.3	921.3	921.3	921.3	921.3	921.3	921.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1578.9	1578.9
2.5°	1685.5	1675.3
5°	2167.8	2177.9
7.5°	2919.1	2914.0
10°	3629.8	3675.5
12.5°	4147.7	4157.8
15°	4462.4	4482.7
17.5°	4584.3	4589.3
20°	4589.3	4579.2
22.5°	4533.5	4523.3
25°	4467.5	4462.4
27.5°	4406.6	4411.7
30°	4381.2	4396.4
32.5°	4381.2	4406.6
35°	4391.3	4416.7
37.5°	4386.3	4416.7
40°	4366.0	4401.5
42.5°	4310.1	4335.5
45°	4223.8	4254.3
47.5°	4112.1	4132.4
50°	3970.0	3990.3
52.5°	3792.3	3797.4
55°	3579.1	3599.4
57.5°	3350.6	3355.7
60°	3096.8	3112.0
62.5°	2827.7	2827.7
65°	2543.4	2553.6
67.5°	2249.0	2274.4
70°	1949.5	1954.5
72.5°	1655.0	1655.0
75°	1350.4	1355.5
77.5°	1061.0	1061.0
80°	786.9	792.0
82.5°	543.2	553.4
85°	340.1	340.1
87.5°	157.4	142.1
90°	23.5	23.5
92.5°	94.1	75.4
95°	328.0	271.4
97.5°	786.0	678.3
100°	1132.5	1004.2
102.5°	1473.3	1363.4
105°	1907.9	1848.8
107.5°	2192.5	2206.8
110°	2301.0	2362.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2310.8	2405.3
115°	2249.5	2380.6
117.5°	2119.5	2264.9
120°	2014.9	2156.1
122.5°	1912.9	2052.2
125°	1767.4	1895.8
127.5°	1636.6	1744.9
130°	1559.6	1659.6
132.5°	1489.6	1579.2
135°	1393.8	1471.0
137.5°	1316.9	1380.1
140°	1264.1	1323.2
142.5°	1220.5	1271.3
145°	1154.9	1193.4
147.5°	1104.6	1136.5
150°	1072.9	1098.8
152.5°	1045.9	1065.4
155°	1014.8	1027.7
157.5°	990.1	999.2
160°	975.5	980.7
162.5°	965.8	970.8
165°	952.0	957.2
167.5°	942.0	944.2
170°	939.2	939.2
172.5°	931.9	930.0
175°	927.5	927.5
177.5°	923.5	921.3
180°	921.3	921.3



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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	7.95	9.04	8.73	9.86	10.86	21.14	22.24	21.92	23.05	24.05
	3H	8.67	9.66	9.47	10.48	11.51	23.00	23.99	23.80	24.81	25.84
	4H	8.98	9.91	9.79	10.75	11.79	23.66	24.60	24.48	25.43	26.47
	6H	9.24	10.11	10.07	10.95	12.00	24.11	24.97	24.94	25.81	26.87
	8H	9.32	10.14	10.15	11.00	12.05	24.24	25.06	25.08	25.92	26.98
	12H	9.34	10.13	10.19	10.98	12.06	24.32	25.10	25.16	25.96	27.04
4H	2H	15.20	16.13	16.02	16.97	18.00	21.44	22.38	22.26	23.21	24.25
	3H	16.79	17.57	17.62	18.44	19.49	23.51	24.30	24.35	25.16	26.22
	4H	16.89	17.61	17.74	18.47	19.55	24.29	25.01	25.14	25.87	26.95
	6H	16.92	17.54	17.78	18.43	19.51	24.85	25.47	25.71	26.36	27.45
	8H	16.90	17.48	17.76	18.36	19.46	25.02	25.60	25.89	26.49	27.59
	12H	16.87	17.39	17.75	18.29	19.40	25.13	25.66	26.02	26.56	27.66
8H	4H	18.36	18.94	19.23	19.82	20.92	24.37	24.96	25.24	25.84	26.94
	6H	18.61	19.10	19.51	20.02	21.12	25.02	25.50	25.91	26.43	27.53
	8H	18.63	19.06	19.54	19.98	21.10	25.24	25.67	26.15	26.59	27.71
	12H	18.61	18.99	19.52	19.90	21.07	25.40	25.78	26.31	26.69	27.86
12H	4H	18.52	19.04	19.40	19.94	21.05	24.34	24.86	25.22	25.77	26.87
	6H	18.88	19.31	19.78	20.22	21.34	25.00	25.43	25.91	26.35	27.47
	8H	18.96	19.34	19.87	20.25	21.41	25.25	25.63	26.16	26.54	27.71