

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: P938475

Luminaire Tested: SQ4-FB-150U-100D-940-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938475
REPORT IS A COMBINATION OF REPORTS P933639 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-940-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

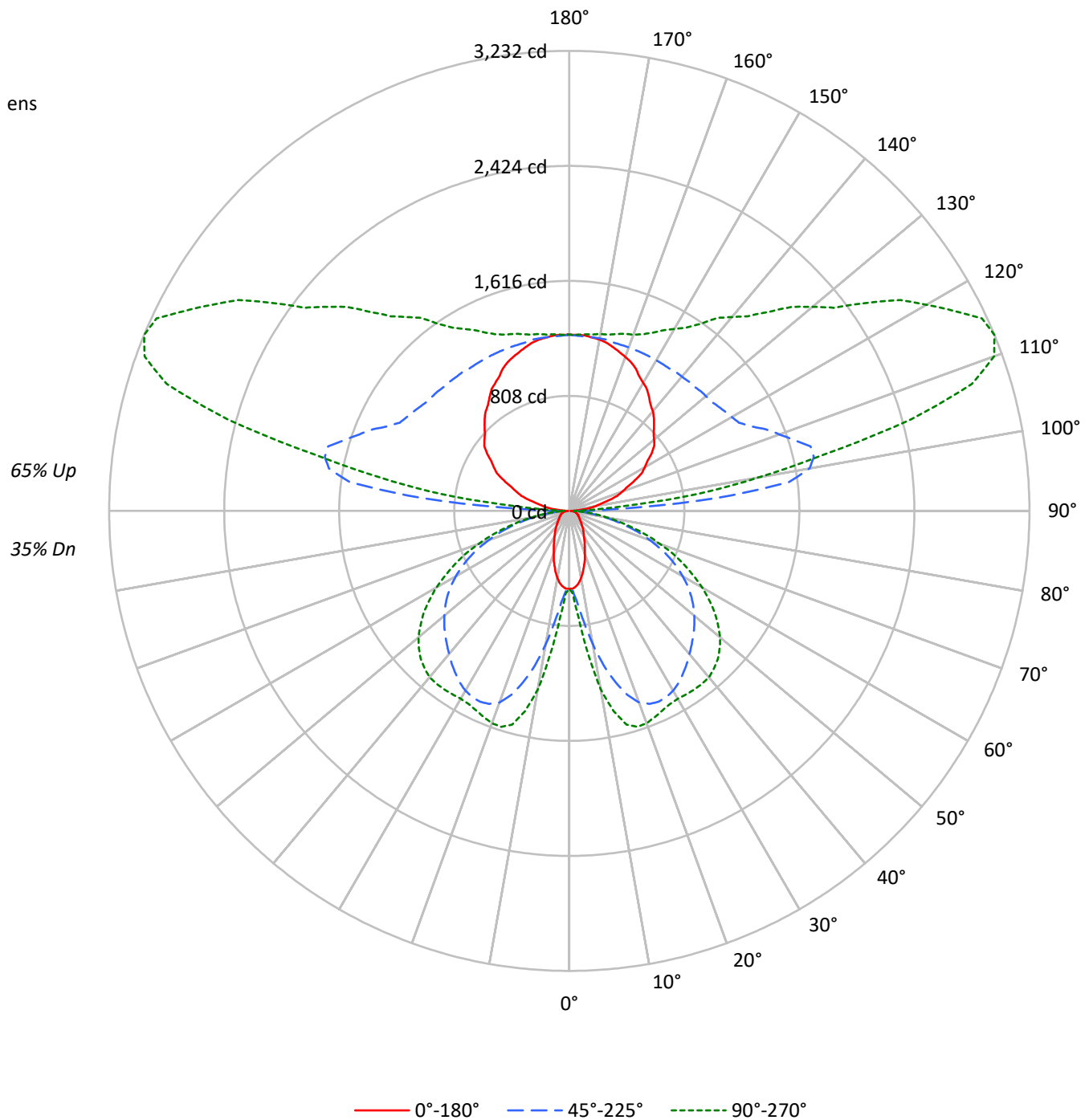
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12263.3 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 108.6
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				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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35				35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28				28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23				23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19				19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16				16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14				14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12				12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10				10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9				9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8				8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7				7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3386	3386	3386
5°	3306	3912	4551
10°	2998	5702	7545
15°	2547	7447	9110
20°	2072	8628	9285
25°	1728	9026	9096
30°	1457	9081	9079
35°	1287	8928	9314
40°	1121	8729	9556
45°	1015	8583	9593
50°	930	8452	9435
55°	889	8260	9016
60°	910	7893	8356
65°	945	7338	7449
70°	1005	6395	6292
75°	1109	5210	4910
80°	1201	3608	3310
85°	1049	1911	1694

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9593 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	0.6
10°-20°	313.8	2.6
20°-30°	548.8	4.5
30°-40°	706.5	5.8
40°-50°	789.2	6.4
50°-60°	755.8	6.2
60°-70°	599.0	4.9
70°-80°	352.2	2.9
80°-90°	102.6	0.8
90°-100°	603.4	4.9
100°-110°	1586.4	12.9
110°-120°	1644.9	13.4
120°-130°	1319.4	10.8
130°-140°	1035.3	8.4
140°-150°	794.6	6.5
150°-160°	572.2	4.7
160°-170°	350.1	2.9
170°-180°	118.3	1.0
0°-30°	933.4	7.6
0°-40°	1639.9	13.4
0°-60°	3184.9	26.0
0°-90°	4238.7	34.6
90°-120°	3834.7	31.3
90°-150°	6983.9	56.9
90°-180°	8025.0	65.4
0°-180°	12263.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	547	547	547	547	547	
5°	533	572	644	729	755	49
15°	400	737	1242	1506	1554	111
25°	255	836	1480	1545	1547	118
35°	172	799	1394	1473	1531	108
45°	118	637	1232	1411	1475	91
55°	84	405	1045	1214	1248	77
65°	67	215	776	873	885	66
75°	49	132	426	468	470	52
85°	18	40	106	116	118	19
90°	8	23	63	32	32	8
95°	80	312	1039	536	365	89
105°	286	433	1754	2663	2484	303
115°	508	616	1405	2802	3198	501
125°	706	792	1278	2159	2547	627
135°	842	926	1238	1743	1976	651
145°	976	1038	1222	1487	1603	612
155°	1103	1134	1222	1342	1381	507
165°	1190	1206	1222	1270	1286	336
175°	1238	1238	1230	1246	1246	118
180°	1238	1238	1238	1238	1238	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	547.3	547.3	547.3	547.3	547.3	547.3	547.3	547.3	547.3	547.3	547.3
2.5°	547.3	547.3	550.8	552.6	556.1	557.8	561.4	564.9	575.4	577.2	580.8
5°	533.2	540.3	563.2	572.0	596.6	630.0	644.1	667.0	714.5	728.6	737.4
7.5°	512.1	527.9	584.3	598.3	660.0	748.0	784.9	834.2	909.8	946.8	976.7
10°	478.6	512.1	612.5	645.8	746.2	879.9	948.6	1017.2	1131.6	1182.6	1202.0
12.5°	441.7	496.3	642.4	688.1	832.4	1027.8	1110.4	1186.1	1316.4	1385.0	1395.6
15°	399.5	473.4	670.5	737.4	923.9	1150.9	1242.5	1335.7	1457.1	1506.4	1518.7
17.5°	362.6	455.8	696.9	767.3	994.3	1261.8	1355.1	1432.5	1531.1	1564.5	1573.3
20°	316.7	427.7	714.5	806.0	1068.3	1342.7	1432.5	1492.4	1559.2	1580.4	1583.8
22.5°	283.4	397.7	725.1	820.1	1117.5	1392.0	1467.7	1515.2	1561.0	1568.0	1569.8
25°	255.2	364.3	723.3	836.0	1159.7	1422.0	1480.0	1515.2	1541.7	1545.1	1545.1
27.5°	228.7	327.3	716.3	839.4	1191.4	1429.0	1474.7	1499.4	1511.7	1518.7	1518.7
30°	205.9	292.2	698.7	832.4	1205.5	1422.0	1458.9	1471.2	1483.6	1494.1	1499.4
32.5°	188.3	258.7	672.2	818.3	1207.2	1404.4	1430.7	1437.8	1455.3	1480.0	1488.8
35°	172.4	225.3	642.4	798.9	1196.7	1376.2	1393.8	1400.8	1436.0	1473.0	1485.3
37.5°	156.6	200.6	603.7	765.5	1180.9	1342.7	1355.1	1367.4	1422.0	1465.9	1480.0
40°	140.7	179.5	557.8	728.6	1156.2	1302.3	1312.8	1332.2	1404.4	1455.3	1469.5
42.5°	128.5	161.9	508.6	689.9	1124.6	1256.5	1272.3	1300.5	1383.2	1437.8	1453.7
45°	117.9	144.3	455.8	637.1	1084.1	1209.0	1231.9	1270.6	1358.6	1411.4	1425.5
47.5°	107.4	132.0	401.3	582.5	1040.0	1161.5	1191.4	1235.4	1325.2	1376.2	1388.5
50°	98.6	119.7	346.7	524.5	992.5	1110.4	1145.7	1191.4	1282.9	1330.4	1346.3
52.5°	91.6	109.1	295.6	466.4	938.0	1057.7	1098.1	1145.7	1231.9	1277.7	1288.2
55°	84.4	100.3	251.7	404.8	881.7	1001.3	1045.4	1091.1	1175.5	1214.3	1221.4
57.5°	81.0	93.2	214.7	346.7	821.8	938.0	987.3	1029.5	1108.7	1138.6	1145.7
60°	75.7	88.0	186.6	297.4	756.8	878.1	920.4	962.6	1029.5	1054.1	1059.4
62.5°	70.4	84.4	165.4	249.9	689.9	807.7	850.0	888.7	945.0	962.6	969.7
65°	66.9	81.0	149.6	214.7	621.2	733.8	776.1	809.5	855.3	872.9	876.4
67.5°	63.3	77.4	137.3	184.8	552.6	660.0	691.6	723.3	758.5	776.1	777.9
70°	58.1	73.9	126.7	163.7	482.2	575.4	601.9	635.3	663.4	672.2	677.5
72.5°	54.5	68.6	119.7	147.9	410.1	494.5	519.1	538.5	563.2	572.0	572.0
75°	49.3	61.6	112.6	132.0	336.1	404.8	425.9	445.2	464.6	468.2	462.8
77.5°	44.0	54.5	96.8	110.9	262.2	320.3	337.9	348.5	364.3	367.8	369.6
80°	36.9	47.5	75.7	86.2	190.0	235.9	248.1	256.9	271.0	271.0	274.6
82.5°	28.1	36.9	54.5	61.6	128.5	161.9	172.4	177.8	186.6	186.6	186.6
85°	17.6	22.9	35.2	40.5	77.4	98.6	105.6	107.4	114.4	116.2	116.2
87.5°	8.8	12.3	22.9	24.6	40.5	51.1	51.1	54.5	54.5	52.8	51.1
90°	8.3	15.0	21.6	23.3	36.6	54.3	63.1	56.1	42.1	31.6	31.6
92.5°	33.2	89.7	146.3	160.4	225.5	312.2	355.6	311.6	223.8	157.9	151.6
95°	79.7	183.1	286.6	312.4	554.7	877.8	1039.3	927.4	703.7	535.8	516.8
97.5°	137.9	229.1	320.3	343.1	747.2	1285.9	1555.2	1484.6	1343.1	1237.1	1200.8
100°	182.8	265.5	348.2	368.9	817.2	1415.0	1713.9	1719.1	1729.5	1737.2	1694.1
102.5°	221.0	298.2	375.4	394.6	849.4	1455.6	1758.8	1848.8	2029.0	2164.1	2127.2
105°	285.8	351.1	416.5	432.8	873.2	1460.2	1753.8	1955.7	2359.7	2662.7	2642.8
107.5°	352.3	413.2	474.1	489.3	877.5	1395.2	1654.1	1935.8	2499.3	2921.9	2926.7
110°	397.1	452.2	507.1	520.9	871.0	1337.6	1571.0	1885.9	2515.9	2988.3	3009.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	441.2	493.6	545.9	559.1	871.2	1287.3	1495.4	1817.7	2462.4	2945.9	2977.7
115°	507.6	556.0	604.4	616.4	879.2	1229.6	1404.8	1715.3	2336.4	2802.2	2846.2
117.5°	573.2	617.2	661.1	672.1	895.6	1193.6	1342.6	1622.8	2183.2	2603.6	2652.5
120°	611.5	652.9	694.2	704.5	908.9	1181.4	1317.6	1573.7	2085.8	2469.9	2517.3
122.5°	648.9	690.6	732.3	742.7	928.0	1175.0	1298.5	1529.1	1990.3	2336.2	2382.9
125°	706.1	744.1	782.2	791.7	953.7	1169.8	1277.7	1473.6	1865.3	2159.2	2202.2
127.5°	752.7	791.0	829.5	839.1	979.5	1166.7	1260.2	1428.4	1764.8	2017.1	2053.5
130°	777.6	819.0	860.4	870.7	998.4	1168.6	1253.7	1403.4	1702.8	1927.4	1961.0
132.5°	803.4	844.8	886.1	896.4	1013.6	1169.8	1247.8	1381.8	1649.9	1850.9	1881.1
135°	841.6	879.2	916.9	926.4	1030.2	1168.6	1237.9	1350.1	1574.6	1743.0	1768.9
137.5°	880.6	917.9	955.2	964.5	1055.1	1175.8	1236.2	1331.1	1520.9	1663.2	1684.4
140°	913.0	947.4	981.7	990.3	1070.3	1177.0	1230.4	1312.4	1476.3	1599.3	1619.1
142.5°	937.9	969.7	1001.5	1009.4	1083.1	1181.3	1230.4	1302.4	1446.4	1554.4	1571.4
145°	976.2	1003.9	1031.6	1038.5	1099.7	1181.3	1222.1	1280.9	1398.8	1487.1	1500.0
147.5°	1014.4	1041.4	1068.3	1075.0	1124.0	1189.4	1222.1	1268.4	1361.0	1430.6	1441.3
150°	1039.3	1063.6	1088.0	1094.1	1136.7	1193.6	1222.1	1261.2	1339.5	1398.2	1406.9
152.5°	1065.1	1083.5	1102.0	1106.6	1145.1	1196.4	1222.1	1255.5	1322.3	1372.4	1379.0
155°	1103.3	1116.9	1130.6	1134.0	1163.4	1202.5	1222.1	1248.6	1301.8	1341.7	1346.0
157.5°	1131.5	1144.8	1158.1	1161.4	1181.7	1208.6	1222.1	1242.8	1284.1	1315.1	1318.1
160°	1150.7	1161.0	1171.3	1173.8	1189.9	1211.3	1222.1	1239.8	1275.3	1301.8	1303.6
162.5°	1169.8	1177.5	1185.2	1187.2	1198.8	1214.3	1222.1	1237.0	1266.9	1289.4	1291.1
165°	1190.5	1197.6	1204.5	1206.3	1211.5	1218.5	1222.1	1232.8	1254.2	1270.3	1272.1
167.5°	1209.6	1212.9	1216.3	1217.1	1221.5	1227.5	1230.4	1237.4	1251.5	1261.9	1262.6
170°	1222.1	1225.4	1228.7	1229.5	1229.8	1230.2	1230.4	1237.4	1251.5	1261.9	1261.9
172.5°	1228.7	1229.4	1230.2	1230.4	1230.4	1230.4	1230.4	1235.9	1247.0	1255.3	1254.7
175°	1237.9	1237.9	1237.9	1237.9	1235.4	1232.1	1230.4	1233.9	1240.9	1246.1	1246.1
177.5°	1237.9	1237.9	1237.9	1237.9	1235.9	1233.3	1232.0	1234.8	1240.4	1244.5	1243.8
180°	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	547.3	547.3
2.5°	584.3	580.8
5°	751.4	755.0
7.5°	1011.9	1010.2
10°	1258.3	1274.1
12.5°	1437.8	1441.3
15°	1546.9	1553.9
17.5°	1589.2	1590.9
20°	1590.9	1587.4
22.5°	1571.5	1568.0
25°	1548.7	1546.9
27.5°	1527.5	1529.3
30°	1518.7	1524.0
32.5°	1518.7	1527.5
35°	1522.3	1531.1
37.5°	1520.5	1531.1
40°	1513.4	1525.8
42.5°	1494.1	1502.9
45°	1464.2	1474.7
47.5°	1425.5	1432.5
50°	1376.2	1383.2
52.5°	1314.6	1316.4
55°	1240.7	1247.7
57.5°	1161.5	1163.3
60°	1073.5	1078.7
62.5°	980.3	980.3
65°	881.7	885.2
67.5°	779.6	788.4
70°	675.8	677.5
72.5°	573.7	573.7
75°	468.2	469.8
77.5°	367.8	367.8
80°	272.8	274.6
82.5°	188.3	191.8
85°	117.9	117.9
87.5°	54.5	49.3
90°	31.6	31.6
92.5°	126.5	101.3
95°	440.7	364.7
97.5°	1056.1	911.4
100°	1521.7	1349.2
102.5°	1979.5	1831.9
105°	2563.4	2484.0
107.5°	2945.9	2965.0
110°	3091.7	3174.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3104.7	3231.7
115°	3022.3	3198.5
117.5°	2847.8	3043.2
120°	2707.2	2896.9
122.5°	2570.1	2757.3
125°	2374.7	2547.1
127.5°	2199.0	2344.5
130°	2095.4	2229.8
132.5°	2001.4	2121.8
135°	1872.7	1976.4
137.5°	1769.4	1854.3
140°	1698.5	1777.9
142.5°	1639.8	1708.1
145°	1551.7	1603.4
147.5°	1484.1	1527.0
150°	1441.6	1476.3
152.5°	1405.2	1431.5
155°	1363.3	1380.8
157.5°	1330.4	1342.6
160°	1310.6	1317.6
162.5°	1297.6	1304.3
165°	1279.0	1286.0
167.5°	1265.7	1268.6
170°	1261.9	1261.9
172.5°	1252.1	1249.5
175°	1246.1	1246.1
177.5°	1240.8	1237.9
180°	1237.9	1237.9



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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	3.63	4.39	4.70	5.47	6.94	16.80	17.56	17.87	18.64	20.11
	3H	4.33	5.01	5.41	6.10	7.59	18.62	19.31	19.70	20.39	21.88
	4H	4.62	5.27	5.71	6.36	7.86	19.26	19.91	20.35	21.00	22.49
	6H	4.87	5.46	5.97	6.56	8.06	19.68	20.28	20.78	21.37	22.88
	8H	4.93	5.50	6.04	6.61	8.11	19.80	20.37	20.90	21.47	22.98
	12H	4.94	5.49	6.06	6.59	8.11	19.86	20.40	20.97	21.50	23.03
4H	2H	10.82	11.47	11.92	12.56	14.06	17.06	17.71	18.16	18.80	20.29
	3H	12.38	12.93	13.49	14.04	15.55	19.09	19.63	20.20	20.75	22.26
	4H	12.47	12.97	13.59	14.08	15.61	19.85	20.35	20.96	21.45	22.98
	6H	12.48	12.91	13.60	14.04	15.56	20.38	20.81	21.50	21.93	23.46
	8H	12.45	12.85	13.57	13.97	15.51	20.53	20.93	21.65	22.05	23.59
	12H	12.40	12.77	13.54	13.90	15.44	20.62	20.98	21.76	22.11	23.66
8H	4H	13.91	14.31	15.03	15.43	16.97	19.90	20.30	21.02	21.42	22.96
	6H	14.14	14.48	15.29	15.64	17.17	20.52	20.85	21.66	22.01	23.55
	8H	14.16	14.45	15.31	15.59	17.15	20.74	21.03	21.88	22.17	23.72
	12H	14.12	14.38	15.28	15.52	17.11	20.87	21.13	22.02	22.27	23.86
12H	4H	14.04	14.41	15.18	15.54	17.08	19.85	20.21	20.98	21.34	22.89
	6H	14.40	14.69	15.55	15.83	17.39	20.50	20.79	21.65	21.93	23.49
	8H	14.46	14.72	15.62	15.86	17.45	20.72	20.98	21.88	22.12	23.71