

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: P937812

Luminaire Tested: SQ4-FB-125U-050D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937812  
REPORT IS A COMBINATION OF REPORTS P933613 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-050D-830-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

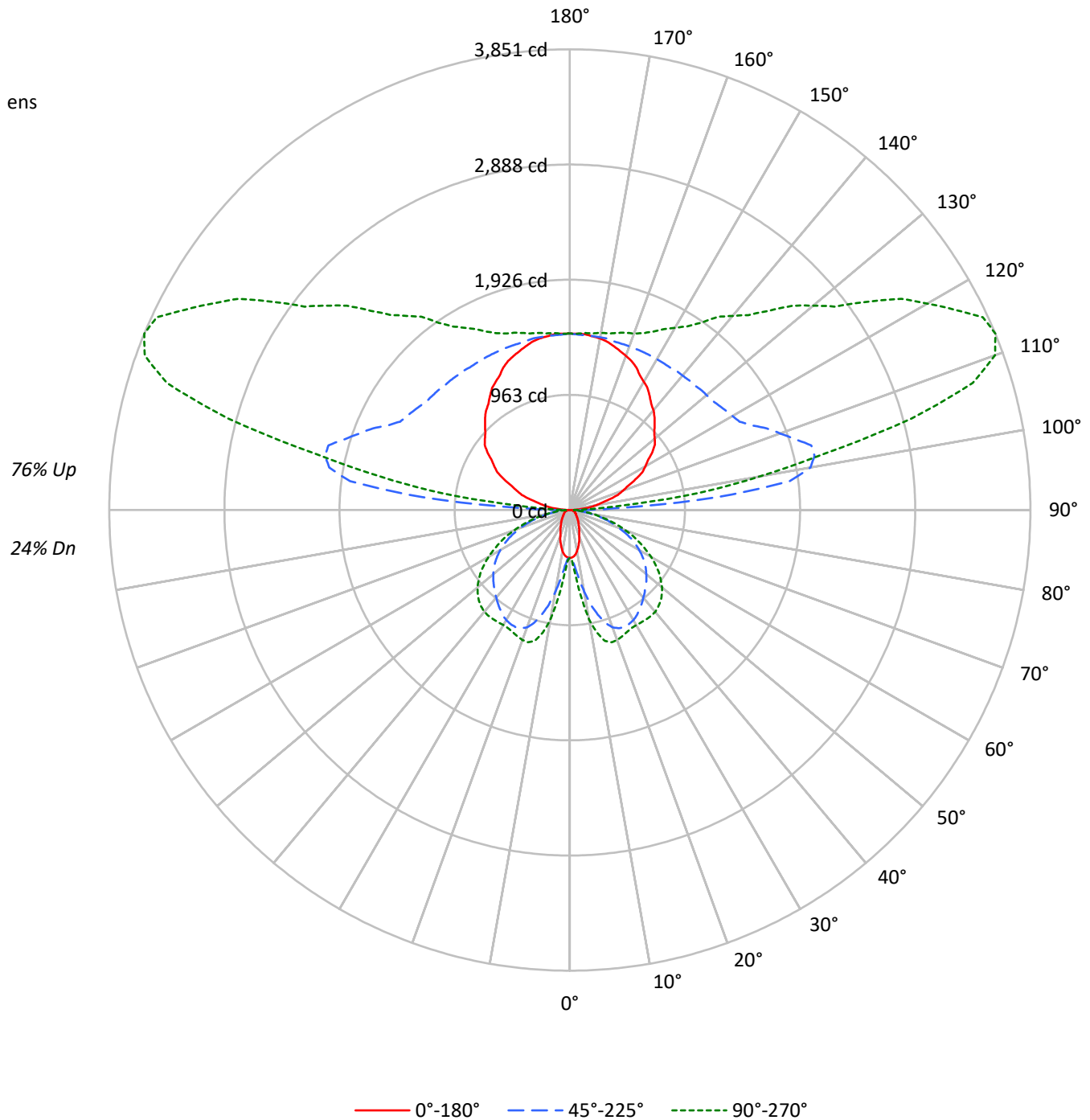
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12652.7 lumens  
Efficiency: N/A  
Efficacy: 132.9 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): 95.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	24				24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27	20				20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22	16				16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	21	20	19	13				13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16	11				11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13	10				10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12	8				8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10	7				7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9	6				6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8	6				6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7	5				5

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1850	1850	1850
5°	1807	2138	2487
10°	1639	3117	4123
15°	1394	4073	4979
20°	1134	4720	5074
25°	946	4939	4971
30°	798	4970	4962
35°	705	4888	5090
40°	615	4780	5222
45°	557	4702	5242
50°	511	4631	5156
55°	490	4527	4928
60°	501	4328	4566
65°	522	4026	4071
70°	556	3511	3439
75°	615	2863	2683
80°	674	1986	1808
85°	596	1054	925

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5242 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.6	0.4
10°-20°	228.6	1.8
20°-30°	399.9	3.2
30°-40°	514.8	4.1
40°-50°	575.0	4.5
50°-60°	550.7	4.4
60°-70°	436.5	3.4
70°-80°	256.6	2.0
80°-90°	76.9	0.6
90°-100°	719.0	5.7
100°-110°	1890.3	14.9
110°-120°	1960.0	15.5
120°-130°	1572.2	12.4
130°-140°	1233.6	9.7
140°-150°	946.8	7.5
150°-160°	681.9	5.4
160°-170°	417.2	3.3
170°-180°	141.0	1.1
0°-30°	680.1	5.4
0°-40°	1194.9	9.4
0°-60°	2320.6	18.3
0°-90°	3090.7	24.4
90°-120°	4569.3	36.1
90°-150°	8322.0	65.8
90°-180°	9562.0	75.6
0°-180°	12652.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	399	399	399	399	399	
5°	388	417	469	531	550	36
15°	291	537	905	1098	1132	81
25°	186	609	1078	1126	1127	86
35°	126	582	1016	1073	1116	78
45°	86	464	898	1028	1074	66
55°	62	295	762	885	909	56
65°	49	156	566	636	645	48
75°	36	96	310	341	342	38
85°	13	29	77	85	86	14
90°	10	28	75	38	38	9
95°	95	372	1238	638	435	106
105°	340	516	2090	3173	2960	361
115°	605	734	1674	3339	3811	597
125°	842	943	1522	2573	3035	747
135°	1003	1104	1475	2077	2355	776
145°	1163	1237	1456	1772	1911	729
155°	1315	1351	1456	1599	1645	604
165°	1419	1437	1456	1514	1532	400
175°	1475	1475	1466	1485	1485	140
180°	1475	1475	1475	1475	1475	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7
2.5°	398.7	398.7	401.3	402.7	405.2	406.5	409.1	411.7	419.3	420.5	423.1
5°	388.5	393.7	410.3	416.7	434.7	459.1	469.3	485.9	520.6	530.9	537.3
7.5°	373.1	384.7	425.7	435.9	480.9	544.9	571.9	607.8	662.9	689.8	711.6
10°	348.7	373.1	446.3	470.6	543.7	641.1	691.2	741.2	824.5	861.6	875.8
12.5°	321.9	361.6	468.1	501.3	606.5	748.8	809.2	864.2	959.2	1009.2	1016.8
15°	291.1	344.9	488.5	537.3	673.2	838.6	905.3	973.2	1061.7	1097.6	1106.6
17.5°	264.1	332.1	507.8	559.1	724.5	919.4	987.4	1043.8	1115.6	1139.9	1146.3
20°	230.8	311.6	520.6	587.3	778.4	978.4	1043.8	1087.4	1136.1	1151.5	1154.1
22.5°	206.4	289.8	528.3	597.5	814.2	1014.3	1069.4	1104.1	1137.4	1142.5	1143.8
25°	185.9	265.4	527.0	609.1	845.0	1036.1	1078.4	1104.1	1123.3	1125.9	1125.9
27.5°	166.7	238.5	521.9	611.6	868.1	1041.2	1074.5	1092.5	1101.5	1106.6	1106.6
30°	150.0	212.9	509.1	606.5	878.4	1036.1	1063.0	1072.0	1080.9	1088.7	1092.5
32.5°	137.2	188.5	489.9	596.3	879.6	1023.2	1042.5	1047.6	1060.4	1078.4	1084.8
35°	125.6	164.1	468.1	582.1	872.0	1002.7	1015.6	1020.7	1046.3	1073.3	1082.2
37.5°	114.1	146.2	439.9	557.8	860.4	978.4	987.4	996.3	1036.1	1068.1	1078.4
40°	102.6	130.8	406.5	530.9	842.4	948.9	956.6	970.7	1023.2	1060.4	1070.7
42.5°	93.6	118.0	370.5	502.7	819.4	915.6	927.1	947.6	1007.9	1047.6	1059.2
45°	85.9	105.2	332.1	464.1	789.8	881.0	897.6	925.8	989.9	1028.4	1038.6
47.5°	78.2	96.2	292.3	424.5	757.8	846.3	868.1	900.2	965.6	1002.7	1011.7
50°	71.8	87.2	252.6	382.1	723.2	809.2	834.8	868.1	934.8	969.4	981.0
52.5°	66.6	79.5	215.4	339.8	683.4	770.6	800.2	834.8	897.6	931.0	938.6
55°	61.6	73.1	183.4	294.9	642.4	729.6	761.6	795.0	856.6	884.8	889.9
57.5°	59.0	68.0	156.4	252.6	598.8	683.4	719.4	750.2	807.8	829.6	834.8
60°	55.2	64.1	135.9	216.7	551.4	639.9	670.6	701.4	750.2	768.1	772.0
62.5°	51.3	61.6	120.6	182.1	502.7	588.6	619.3	647.6	688.6	701.4	706.6
65°	48.8	59.0	109.0	156.4	452.7	534.7	565.5	589.9	623.2	636.0	638.6
67.5°	46.2	56.4	100.0	134.6	402.7	480.9	503.9	527.0	552.7	565.5	566.7
70°	42.4	53.8	92.3	119.2	351.3	419.3	438.5	462.9	483.4	489.9	493.7
72.5°	39.8	50.0	87.2	107.7	298.8	360.3	378.3	392.3	410.3	416.7	416.7
75°	35.9	44.8	82.0	96.2	244.9	294.9	310.3	324.4	338.5	341.1	337.3
77.5°	32.0	39.8	70.6	80.8	191.1	233.4	246.2	253.9	265.4	268.0	269.3
80°	27.0	34.6	55.2	62.8	138.5	171.8	180.8	187.2	197.5	197.5	200.0
82.5°	20.6	27.0	39.8	44.8	93.6	118.0	125.6	129.5	135.9	135.9	135.9
85°	12.8	16.6	25.6	29.4	56.4	71.8	77.0	78.2	83.4	84.6	84.6
87.5°	6.4	9.0	16.6	18.0	29.4	37.2	37.2	39.8	39.8	38.4	37.2
90°	9.9	17.9	25.7	27.7	43.6	64.7	75.2	66.8	50.1	37.6	37.6
92.5°	39.6	106.9	174.3	191.1	268.6	372.0	423.7	371.3	266.6	188.0	180.6
95°	95.0	218.3	341.5	372.3	661.0	1046.0	1238.4	1105.1	838.5	638.5	615.9
97.5°	164.3	273.0	381.7	408.9	890.3	1532.3	1853.2	1769.0	1600.4	1474.1	1430.9
100°	217.8	316.3	414.9	439.6	973.8	1686.1	2042.3	2048.4	2060.8	2070.0	2018.7
102.5°	263.3	355.2	447.2	470.3	1012.1	1734.6	2095.7	2203.1	2417.8	2578.8	2534.8
105°	340.5	418.4	496.3	515.8	1040.4	1740.0	2089.8	2330.4	2811.8	3172.8	3149.2
107.5°	419.8	492.3	564.9	583.1	1045.7	1662.6	1971.0	2306.7	2978.1	3481.7	3487.4
110°	473.2	538.8	604.4	620.7	1037.8	1593.9	1872.0	2247.4	2997.9	3560.8	3585.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	525.7	588.1	650.7	666.2	1038.1	1534.0	1781.9	2166.0	2934.2	3510.3	3548.2
115°	604.9	662.5	720.1	734.5	1047.7	1465.3	1674.1	2044.0	2784.1	3339.1	3391.6
117.5°	683.1	735.5	787.7	800.8	1067.2	1422.2	1599.8	1933.7	2601.6	3102.5	3160.7
120°	728.6	777.9	827.1	839.5	1083.0	1407.7	1570.0	1875.2	2485.4	2943.1	2999.6
122.5°	773.1	822.8	872.5	885.0	1105.7	1400.1	1547.3	1822.0	2371.6	2783.8	2839.5
125°	841.5	886.8	932.1	943.4	1136.4	1393.8	1522.5	1756.0	2222.8	2572.9	2624.2
127.5°	896.9	942.7	988.4	999.9	1167.2	1390.2	1501.8	1702.2	2103.0	2403.6	2446.9
130°	926.6	975.9	1025.1	1037.5	1189.6	1392.4	1493.8	1672.2	2029.1	2296.7	2336.8
132.5°	957.2	1006.6	1055.8	1068.1	1207.7	1393.8	1486.9	1646.6	1966.0	2205.6	2241.4
135°	1002.8	1047.7	1092.6	1103.8	1227.5	1392.5	1475.0	1608.8	1876.2	2076.9	2107.8
137.5°	1049.3	1093.8	1138.2	1149.3	1257.2	1401.1	1473.0	1586.1	1812.3	1981.9	2007.2
140°	1087.9	1128.8	1169.8	1180.0	1275.4	1402.5	1466.1	1563.8	1759.1	1905.7	1929.3
142.5°	1117.7	1155.5	1193.3	1202.7	1290.5	1407.6	1466.1	1551.9	1723.5	1852.2	1872.5
145°	1163.2	1196.1	1229.2	1237.4	1310.4	1407.6	1456.2	1526.3	1666.8	1772.0	1787.4
147.5°	1208.8	1240.9	1273.0	1281.0	1339.5	1417.3	1456.2	1511.4	1621.9	1704.7	1717.5
150°	1238.4	1267.5	1296.5	1303.8	1354.6	1422.3	1456.2	1502.8	1596.1	1666.1	1676.4
152.5°	1269.1	1291.1	1313.1	1318.6	1364.5	1425.6	1456.2	1496.0	1575.7	1635.4	1643.3
155°	1314.7	1330.9	1347.2	1351.3	1386.3	1432.9	1456.2	1487.9	1551.3	1598.8	1604.0
157.5°	1348.3	1364.1	1380.0	1383.9	1408.0	1440.1	1456.2	1480.8	1530.1	1567.1	1570.7
160°	1371.1	1383.4	1395.8	1398.8	1417.9	1443.5	1456.2	1477.3	1519.6	1551.2	1553.3
162.5°	1393.8	1403.0	1412.3	1414.6	1428.5	1446.9	1456.2	1474.0	1509.6	1536.4	1538.4
165°	1418.6	1427.0	1435.3	1437.4	1443.7	1452.0	1456.2	1469.0	1494.5	1513.6	1515.7
167.5°	1441.4	1445.3	1449.3	1450.3	1455.5	1462.6	1466.1	1474.4	1491.2	1503.7	1504.6
170°	1456.2	1460.2	1464.2	1465.2	1465.5	1465.9	1466.1	1474.4	1491.2	1503.7	1503.7
172.5°	1464.1	1465.0	1465.9	1466.1	1466.1	1466.1	1466.1	1472.7	1485.9	1495.9	1495.1
175°	1475.0	1475.0	1475.0	1475.0	1472.0	1468.1	1466.1	1470.3	1478.6	1485.0	1485.0
177.5°	1475.0	1475.0	1475.0	1475.0	1472.7	1469.7	1468.1	1471.4	1478.0	1482.9	1482.1
180°	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	398.7	398.7
2.5°	425.7	423.1
5°	547.5	550.1
7.5°	737.3	736.0
10°	916.8	928.4
12.5°	1047.6	1050.2
15°	1127.1	1132.3
17.5°	1157.9	1159.1
20°	1159.1	1156.6
22.5°	1145.1	1142.5
25°	1128.4	1127.1
27.5°	1113.0	1114.3
30°	1106.6	1110.5
32.5°	1106.6	1113.0
35°	1109.2	1115.6
37.5°	1107.9	1115.6
40°	1102.7	1111.7
42.5°	1088.7	1095.1
45°	1066.9	1074.5
47.5°	1038.6	1043.8
50°	1002.7	1007.9
52.5°	957.8	959.2
55°	904.0	909.2
57.5°	846.3	847.6
60°	782.2	786.0
62.5°	714.2	714.2
65°	642.4	645.0
67.5°	568.1	574.5
70°	492.4	493.7
72.5°	418.1	418.1
75°	341.1	342.3
77.5°	268.0	268.0
80°	198.8	200.0
82.5°	137.2	139.8
85°	85.9	85.9
87.5°	39.8	35.9
90°	37.6	37.6
92.5°	150.7	120.7
95°	525.2	434.6
97.5°	1258.5	1086.0
100°	1813.1	1607.7
102.5°	2358.8	2182.8
105°	3054.5	2960.0
107.5°	3510.2	3533.1
110°	3684.0	3782.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3699.5	3850.9
115°	3601.4	3811.3
117.5°	3393.4	3626.2
120°	3225.8	3451.9
122.5°	3062.6	3285.7
125°	2829.8	3035.2
127.5°	2620.3	2793.6
130°	2496.9	2657.0
132.5°	2384.9	2528.3
135°	2231.5	2355.1
137.5°	2108.4	2209.6
140°	2023.9	2118.5
142.5°	1953.9	2035.3
145°	1849.0	1910.6
147.5°	1768.5	1819.6
150°	1717.8	1759.1
152.5°	1674.4	1705.7
155°	1624.6	1645.3
157.5°	1585.2	1599.8
160°	1561.6	1570.0
162.5°	1546.3	1554.3
165°	1524.1	1532.5
167.5°	1508.1	1511.6
170°	1503.7	1503.7
172.5°	1491.9	1488.9
175°	1485.0	1485.0
177.5°	1478.5	1475.0
180°	1475.0	1475.0



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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	0.13	0.81	1.27	1.95	3.54	13.31	13.99	14.45	15.13	16.72
	3H	0.82	1.43	1.97	2.58	4.19	15.13	15.75	16.29	16.89	18.50
	4H	1.11	1.69	2.27	2.84	4.45	15.77	16.36	16.93	17.50	19.11
	6H	1.35	1.89	2.52	3.04	4.66	16.19	16.73	17.36	17.88	19.50
	8H	1.41	1.93	2.59	3.09	4.71	16.31	16.82	17.48	17.98	19.60
	12H	1.42	1.91	2.60	3.07	4.71	16.37	16.86	17.55	18.01	19.65
4H	2H	7.32	7.91	8.49	9.05	10.67	13.56	14.15	14.73	15.29	16.90
	3H	8.87	9.36	10.05	10.53	12.16	15.59	16.08	16.76	17.25	18.87
	4H	8.96	9.41	10.14	10.57	12.21	16.35	16.80	17.52	17.96	19.60
	6H	8.96	9.35	10.14	10.53	12.16	16.88	17.26	18.06	18.45	20.08
	8H	8.93	9.29	10.11	10.47	12.12	17.03	17.40	18.21	18.57	20.22
	12H	8.88	9.21	10.08	10.39	12.05	17.12	17.45	18.32	18.63	20.29
8H	4H	10.39	10.75	11.57	11.92	13.57	16.39	16.75	17.57	17.93	19.58
	6H	10.62	10.92	11.82	12.14	13.78	17.01	17.31	18.21	18.53	20.17
	8H	10.64	10.90	11.84	12.09	13.76	17.23	17.49	18.44	18.68	20.35
	12H	10.60	10.83	11.81	12.02	13.72	17.37	17.60	18.58	18.79	20.48
12H	4H	10.52	10.85	11.72	12.04	13.69	16.34	16.66	17.53	17.85	19.50
	6H	10.88	11.14	12.08	12.33	14.00	17.00	17.25	18.20	18.45	20.11
	8H	10.94	11.17	12.15	12.36	14.06	17.22	17.44	18.43	18.63	20.33