

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: P938247

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

**Test Information**

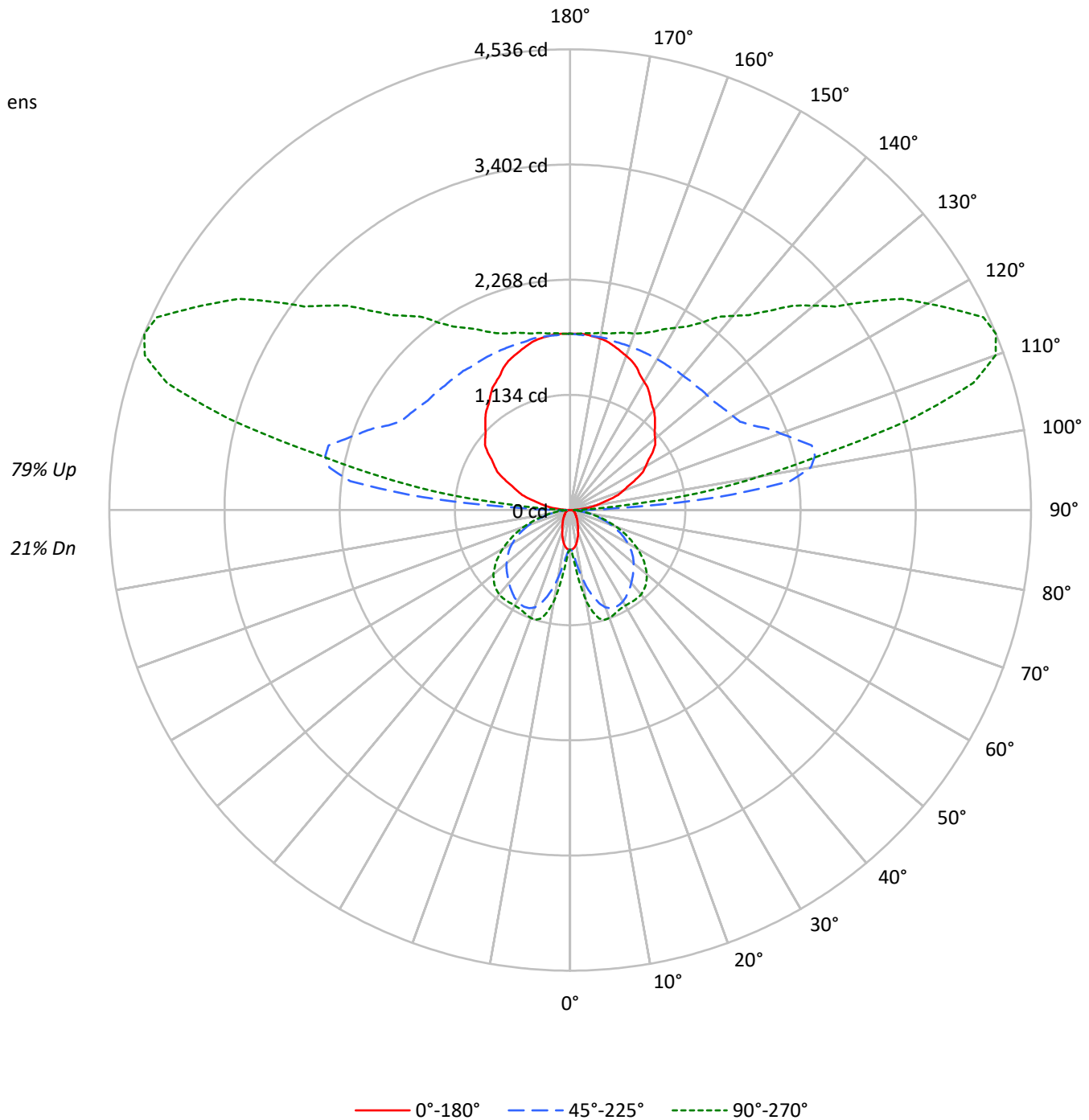
Test Method: LM-79-2019  
Report Number: P938247  
REPORT IS A COMBINATION OF REPORTS P933645 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-8-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14285.1 lumens  
Efficiency: N/A  
Efficacy: 128.5 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: Semi-Indirect  
  
Input Watts (W): 111.2  
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	
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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

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

	0°	45°	90°
0°	1809	1809	1809
5°	1767	2091	2431
10°	1603	3048	4031
15°	1362	3982	4868
20°	1109	4614	4961
25°	925	4828	4860
30°	780	4859	4851
35°	689	4778	4976
40°	601	4674	5106
45°	544	4597	5126
50°	499	4528	5042
55°	478	4427	4818
60°	490	4232	4465
65°	510	3937	3980
70°	543	3433	3362
75°	601	2799	2624
80°	659	1942	1767
85°	582	1030	905

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5126 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.4	0.4
10°-20°	223.5	1.6
20°-30°	391.0	2.7
30°-40°	503.3	3.5
40°-50°	562.2	3.9
50°-60°	538.5	3.8
60°-70°	426.7	3.0
70°-80°	250.9	1.8
80°-90°	76.3	0.5
90°-100°	846.9	5.9
100°-110°	2226.4	15.6
110°-120°	2308.5	16.2
120°-130°	1851.7	13.0
130°-140°	1452.9	10.2
140°-150°	1115.2	7.8
150°-160°	803.1	5.6
160°-170°	491.4	3.4
170°-180°	166.0	1.2
0°-30°	665.0	4.7
0°-40°	1168.3	8.2
0°-60°	2268.9	15.9
0°-90°	3022.9	21.2
90°-120°	5381.8	37.7
90°-150°	9801.7	68.6
90°-180°	11262.0	78.8
0°-180°	14285.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	390	390	390	390	390	
5°	380	407	459	519	538	35
15°	285	525	885	1073	1107	79
25°	182	596	1054	1101	1102	84
35°	123	569	993	1049	1091	77
45°	84	454	878	1006	1051	65
55°	60	288	745	865	889	55
65°	48	153	553	622	631	47
75°	35	94	303	334	335	37
85°	12	29	75	83	84	13
90°	12	33	89	44	44	10
95°	112	438	1459	752	512	124
105°	401	608	2461	3737	3486	425
115°	712	865	1972	3933	4489	704
125°	991	1111	1793	3030	3575	880
135°	1181	1300	1737	2446	2774	914
145°	1370	1458	1715	2087	2250	858
155°	1548	1592	1715	1883	1938	711
165°	1671	1693	1715	1783	1805	472
175°	1737	1737	1727	1749	1749	165
180°	1737	1737	1737	1737	1737	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9
2.5°	389.9	389.9	392.4	393.7	396.1	397.4	400.0	402.5	410.0	411.2	413.7
5°	379.9	384.9	401.2	407.4	425.0	448.8	458.8	475.1	509.0	519.0	525.3
7.5°	364.8	376.1	416.2	426.2	470.2	532.8	559.1	594.3	648.1	674.5	695.8
10°	341.0	364.8	436.3	460.2	531.6	626.8	675.8	724.7	806.1	842.5	856.3
12.5°	314.7	353.5	457.6	490.2	593.0	732.2	791.1	845.0	937.8	986.7	994.2
15°	284.6	337.2	477.6	525.3	658.2	819.9	885.2	951.5	1038.1	1073.1	1081.9
17.5°	258.3	324.7	496.5	546.6	708.3	898.9	965.4	1020.5	1090.7	1114.5	1120.8
20°	225.6	304.6	509.0	574.2	761.0	956.6	1020.5	1063.1	1110.8	1125.9	1128.4
22.5°	201.8	283.3	516.5	584.2	796.1	991.7	1045.6	1079.5	1112.0	1117.1	1118.3
25°	181.8	259.5	515.3	595.5	826.2	1013.0	1054.3	1079.5	1098.3	1100.8	1100.8
27.5°	163.0	233.2	510.3	598.0	848.8	1018.0	1050.6	1068.2	1077.0	1081.9	1081.9
30°	146.7	208.2	497.7	593.0	858.8	1013.0	1039.3	1048.1	1056.9	1064.4	1068.2
32.5°	134.1	184.3	478.9	583.0	860.0	1000.4	1019.3	1024.3	1036.8	1054.3	1060.6
35°	122.8	160.5	457.6	569.1	852.5	980.4	992.9	998.0	1023.0	1049.4	1058.1
37.5°	111.6	142.9	430.1	545.4	841.2	956.6	965.4	974.2	1013.0	1044.3	1054.3
40°	100.3	127.9	397.4	519.0	823.7	927.8	935.3	949.1	1000.4	1036.8	1046.9
42.5°	91.5	115.3	362.3	491.5	801.1	895.2	906.5	926.5	985.5	1024.3	1035.6
45°	84.0	102.8	324.7	453.8	772.3	861.3	877.6	905.2	967.9	1005.5	1015.5
47.5°	76.5	94.0	285.8	415.0	740.9	827.5	848.8	880.1	944.1	980.4	989.2
50°	70.2	85.2	246.9	373.6	707.1	791.1	816.2	848.8	914.0	947.8	959.1
52.5°	65.1	77.8	210.6	332.2	668.2	753.5	782.3	816.2	877.6	910.2	917.7
55°	60.2	71.5	179.3	288.4	628.1	713.4	744.7	777.3	837.5	865.1	870.1
57.5°	57.7	66.5	152.9	246.9	585.5	668.2	703.4	733.5	789.8	811.1	816.2
60°	53.9	62.7	132.9	211.9	539.1	625.6	655.7	685.8	733.5	750.9	754.8
62.5°	50.2	60.2	117.9	178.1	491.5	575.5	605.5	633.2	673.3	685.8	690.8
65°	47.7	57.7	106.6	152.9	442.6	522.8	552.9	576.7	609.3	621.9	624.4
67.5°	45.1	55.1	97.8	131.6	393.7	470.2	492.7	515.3	540.4	552.9	554.1
70°	41.4	52.6	90.3	116.6	343.5	410.0	428.7	452.6	472.7	478.9	482.7
72.5°	38.9	48.9	85.2	105.3	292.1	352.3	369.9	383.6	401.2	407.4	407.4
75°	35.1	43.8	80.2	94.0	239.5	288.4	303.4	317.1	331.0	333.5	329.8
77.5°	31.3	38.9	69.0	79.0	186.8	228.2	240.7	248.3	259.5	262.0	263.3
80°	26.4	33.8	53.9	61.4	135.4	168.0	176.8	183.0	193.1	193.1	195.5
82.5°	20.1	26.4	38.9	43.8	91.5	115.3	122.8	126.7	132.9	132.9	132.9
85°	12.5	16.3	25.1	28.8	55.1	70.2	75.2	76.5	81.5	82.7	82.7
87.5°	6.3	8.8	16.3	17.6	28.8	36.4	36.4	38.9	38.9	37.6	36.4
90°	11.7	21.0	30.3	32.6	51.3	76.2	88.6	78.8	59.1	44.3	44.3
92.5°	46.6	125.9	205.3	225.1	316.4	438.2	499.0	437.3	314.1	221.5	212.7
95°	112.0	257.0	402.1	438.4	778.4	1231.8	1458.6	1301.6	987.6	752.1	725.3
97.5°	193.6	321.5	449.6	481.6	1048.6	1804.7	2182.7	2083.5	1885.0	1736.1	1685.4
100°	256.5	372.6	488.7	517.7	1147.0	1985.9	2405.4	2412.7	2427.2	2438.0	2377.5
102.5°	310.1	418.5	526.7	553.8	1192.0	2042.9	2468.4	2594.8	2847.7	3037.3	2985.5
105°	401.1	492.8	584.6	607.5	1225.4	2049.3	2461.4	2744.9	3311.8	3737.0	3709.1
107.5°	494.4	579.9	665.3	686.7	1231.7	1958.2	2321.4	2716.8	3507.7	4100.7	4107.5
110°	557.4	634.6	711.8	731.0	1222.3	1877.4	2204.9	2646.9	3530.9	4194.0	4223.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	619.1	692.7	766.3	784.7	1222.7	1806.7	2098.7	2551.1	3455.9	4134.5	4179.1
115°	712.4	780.3	848.2	865.2	1234.0	1725.7	1971.7	2407.4	3279.0	3932.8	3994.6
117.5°	804.5	866.2	927.9	943.3	1256.9	1675.1	1884.2	2277.5	3064.2	3654.1	3722.7
120°	858.2	916.2	974.2	988.7	1275.6	1658.0	1849.2	2208.6	2927.4	3466.5	3533.0
122.5°	910.6	969.2	1027.7	1042.4	1302.4	1649.1	1822.4	2146.0	2793.3	3278.7	3344.4
125°	991.1	1044.4	1097.8	1111.2	1338.5	1641.6	1793.2	2068.1	2617.9	3030.3	3090.8
127.5°	1056.4	1110.2	1164.2	1177.6	1374.7	1637.4	1768.7	2004.8	2476.9	2830.9	2882.0
130°	1091.4	1149.4	1207.5	1221.9	1401.1	1639.9	1759.4	1969.5	2389.9	2705.0	2752.2
132.5°	1127.5	1185.6	1243.6	1258.1	1422.5	1641.7	1751.3	1939.3	2315.5	2597.7	2640.0
135°	1181.1	1234.0	1286.9	1300.1	1445.8	1640.1	1737.2	1894.8	2209.9	2446.2	2482.6
137.5°	1236.0	1288.3	1340.6	1353.6	1480.8	1650.2	1735.0	1868.2	2134.5	2334.2	2364.1
140°	1281.4	1329.6	1377.8	1389.8	1502.2	1651.9	1726.8	1841.8	2072.0	2244.5	2272.4
142.5°	1316.3	1360.9	1405.5	1416.6	1520.0	1657.9	1726.8	1827.8	2029.9	2181.5	2205.4
145°	1370.0	1408.9	1447.8	1457.5	1543.4	1657.9	1715.1	1797.7	1963.1	2087.1	2105.2
147.5°	1423.7	1461.5	1499.4	1508.8	1577.6	1669.3	1715.1	1780.1	1910.2	2007.7	2022.8
150°	1458.6	1492.8	1527.0	1535.5	1595.4	1675.2	1715.1	1770.1	1879.9	1962.3	1974.5
152.5°	1494.8	1520.7	1546.7	1553.1	1607.1	1679.1	1715.1	1762.0	1855.8	1926.1	1935.3
155°	1548.4	1567.6	1586.8	1591.5	1632.7	1687.6	1715.1	1752.4	1827.1	1883.1	1889.1
157.5°	1588.1	1606.8	1625.4	1630.0	1658.4	1696.2	1715.1	1744.2	1802.2	1845.8	1850.1
160°	1614.9	1629.4	1643.9	1647.5	1670.0	1700.0	1715.1	1740.0	1789.8	1827.1	1829.5
162.5°	1641.7	1652.6	1663.5	1666.2	1682.5	1704.2	1715.1	1736.1	1778.1	1809.6	1811.9
165°	1670.8	1680.6	1690.5	1692.9	1700.3	1710.1	1715.1	1730.1	1760.2	1782.8	1785.2
167.5°	1697.6	1702.3	1707.0	1708.2	1714.3	1722.7	1726.8	1736.6	1756.3	1771.1	1772.1
170°	1715.1	1719.8	1724.4	1725.7	1726.0	1726.5	1726.8	1736.6	1756.3	1771.1	1771.1
172.5°	1724.4	1725.5	1726.5	1726.8	1726.8	1726.8	1726.8	1734.5	1750.1	1761.7	1760.8
175°	1737.2	1737.2	1737.2	1737.2	1733.8	1729.1	1726.8	1731.7	1741.5	1748.9	1748.9
177.5°	1737.2	1737.2	1737.2	1737.2	1734.5	1730.9	1729.1	1733.0	1740.8	1746.6	1745.6
180°	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	389.9	389.9
2.5°	416.2	413.7
5°	535.3	537.8
7.5°	720.8	719.6
10°	896.4	907.7
12.5°	1024.3	1026.8
15°	1102.0	1107.1
17.5°	1132.1	1133.3
20°	1133.3	1130.8
22.5°	1119.6	1117.1
25°	1103.2	1102.0
27.5°	1088.2	1089.5
30°	1081.9	1085.8
32.5°	1081.9	1088.2
35°	1084.4	1090.7
37.5°	1083.2	1090.7
40°	1078.2	1087.0
42.5°	1064.4	1070.7
45°	1043.1	1050.6
47.5°	1015.5	1020.5
50°	980.4	985.5
52.5°	936.5	937.8
55°	883.9	888.9
57.5°	827.5	828.7
60°	764.8	768.5
62.5°	698.3	698.3
65°	628.1	630.6
67.5°	555.4	561.7
70°	481.5	482.7
72.5°	408.7	408.7
75°	333.5	334.7
77.5°	262.0	262.0
80°	194.3	195.5
82.5°	134.1	136.7
85°	84.0	84.0
87.5°	38.9	35.1
90°	44.3	44.3
92.5°	177.5	142.3
95°	618.6	511.8
97.5°	1482.2	1279.1
100°	2135.5	1893.5
102.5°	2778.2	2571.0
105°	3597.7	3486.3
107.5°	4134.4	4161.3
110°	4339.1	4455.2





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4357.3	4535.6
115°	4241.8	4488.9
117.5°	3996.8	4271.0
120°	3799.4	4065.7
122.5°	3607.1	3869.9
125°	3332.9	3574.9
127.5°	3086.2	3290.4
130°	2940.9	3129.5
132.5°	2808.9	2977.9
135°	2628.2	2773.8
137.5°	2483.2	2602.4
140°	2383.8	2495.2
142.5°	2301.3	2397.2
145°	2177.8	2250.3
147.5°	2082.9	2143.0
150°	2023.3	2072.0
152.5°	1972.1	2009.0
155°	1913.5	1937.8
157.5°	1867.1	1884.2
160°	1839.4	1849.2
162.5°	1821.2	1830.5
165°	1795.1	1804.9
167.5°	1776.3	1780.4
170°	1771.1	1771.1
172.5°	1757.2	1753.6
175°	1748.9	1748.9
177.5°	1741.4	1737.2
180°	1737.2	1737.2



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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	0.00	0.15	0.65	1.31	2.94	12.67	13.33	13.84	14.49	16.12
	3H	0.18	0.77	1.35	1.93	3.58	14.49	15.09	15.67	16.25	17.89
	4H	0.47	1.03	1.65	2.19	3.84	15.13	15.69	16.31	16.86	18.50
	6H	0.71	1.23	1.90	2.39	4.05	15.55	16.07	16.74	17.23	18.89
	8H	0.77	1.26	1.96	2.44	4.09	15.66	16.16	16.85	17.34	18.99
	12H	0.78	1.25	1.97	2.42	4.10	15.72	16.19	16.92	17.37	19.04
4H	2H	6.68	7.25	7.87	8.41	10.06	12.92	13.48	14.11	14.65	16.29
	3H	8.23	8.70	9.42	9.89	11.55	14.94	15.42	16.14	16.61	18.27
	4H	8.31	8.75	9.51	9.93	11.60	15.70	16.14	16.90	17.31	18.99
	6H	8.31	8.69	9.51	9.88	11.55	16.23	16.60	17.43	17.80	19.47
	8H	8.28	8.63	9.48	9.82	11.51	16.39	16.74	17.59	17.92	19.61
	12H	8.23	8.55	9.45	9.75	11.44	16.47	16.79	17.68	17.99	19.68
8H	4H	9.74	10.09	10.94	11.28	12.96	15.75	16.09	16.94	17.28	18.97
	6H	9.97	10.26	11.19	11.49	13.17	16.37	16.65	17.58	17.88	19.57
	8H	9.99	10.24	11.21	11.45	13.15	16.58	16.83	17.80	18.04	19.74
	12H	9.95	10.17	11.18	11.37	13.11	16.72	16.94	17.94	18.14	19.87
12H	4H	9.88	10.19	11.09	11.39	13.08	15.69	16.01	16.90	17.20	18.89
	6H	10.23	10.48	11.45	11.69	13.39	16.35	16.60	17.57	17.80	19.51
	8H	10.29	10.51	11.52	11.72	13.45	16.57	16.79	17.79	17.99	19.72