

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: P937820

Luminaire Tested: SQ4-FB-125U-050D-840-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

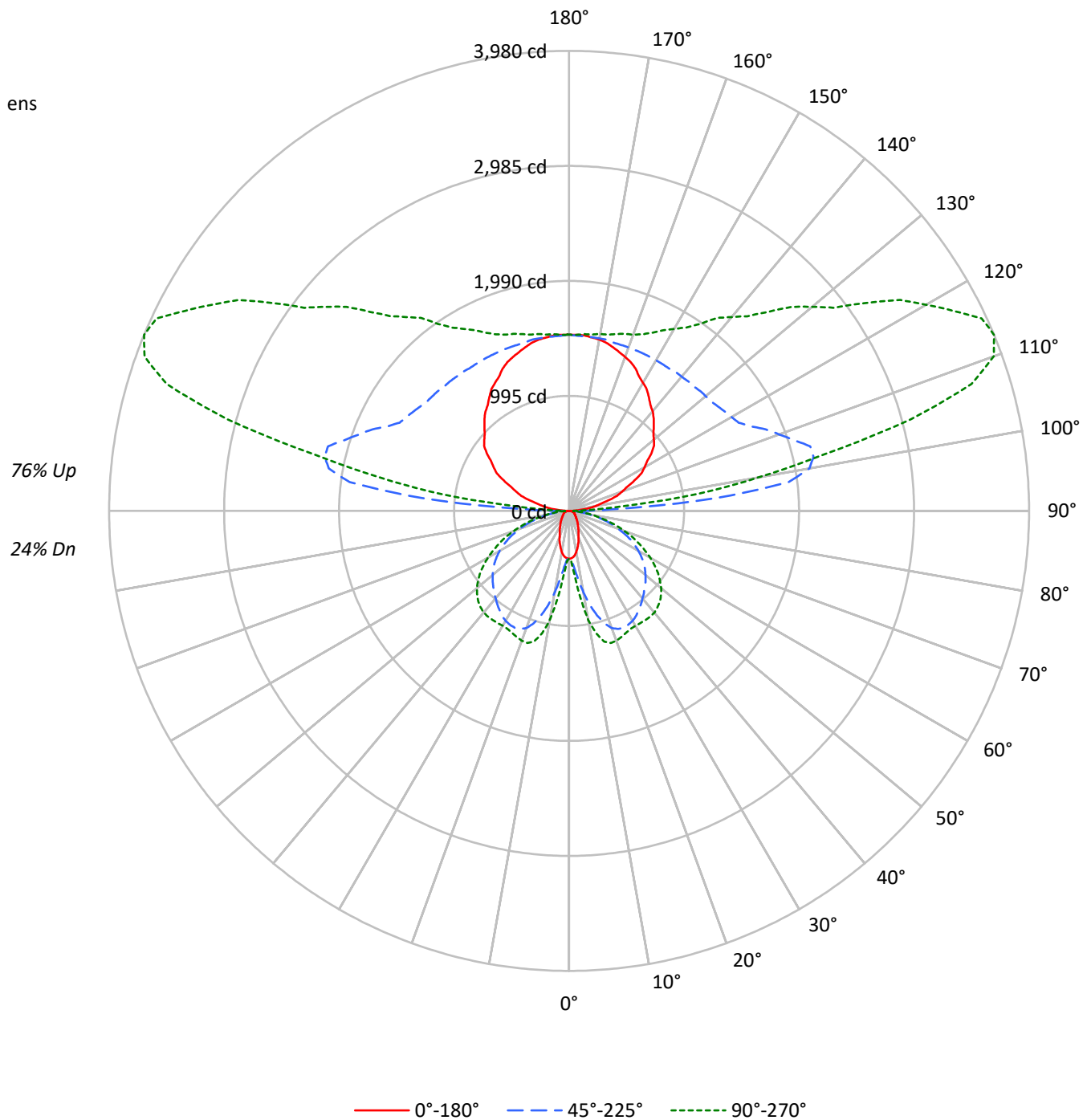
Test Method: LM-79-2019  
Report Number: P937820  
REPORT IS A COMBINATION OF REPORTS P933613 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-050D-840-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13076.2 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: 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°	1912	1912	1912
5°	1868	2210	2570
10°	1694	3222	4261
15°	1440	4209	5145
20°	1172	4877	5244
25°	978	5104	5137
30°	824	5136	5128
35°	729	5051	5260
40°	635	4940	5397
45°	575	4859	5418
50°	528	4786	5328
55°	505	4679	5092
60°	518	4474	4719
65°	539	4161	4207
70°	574	3629	3554
75°	635	2959	2773
80°	696	2051	1869
85°	615	1088	957

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5418 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.3	0.4
10°-20°	236.3	1.8
20°-30°	413.3	3.2
30°-40°	532.0	4.1
40°-50°	594.3	4.5
50°-60°	569.2	4.4
60°-70°	451.1	3.4
70°-80°	265.2	2.0
80°-90°	79.5	0.6
90°-100°	743.1	5.7
100°-110°	1953.6	14.9
110°-120°	2025.6	15.5
120°-130°	1624.8	12.4
130°-140°	1274.9	9.7
140°-150°	978.5	7.5
150°-160°	704.7	5.4
160°-170°	431.2	3.3
170°-180°	145.7	1.1
0°-30°	702.9	5.4
0°-40°	1234.9	9.4
0°-60°	2398.3	18.3
0°-90°	3194.1	24.4
90°-120°	4722.3	36.1
90°-150°	8600.5	65.8
90°-180°	9882.0	75.6
0°-180°	13076.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	412	412	412	412	412	
5°	402	431	485	549	568	37
15°	301	555	936	1134	1170	84
25°	192	630	1114	1164	1165	89
35°	130	602	1050	1109	1153	81
45°	89	480	928	1063	1110	69
55°	64	305	787	914	940	58
65°	50	162	584	657	667	50
75°	37	99	321	352	354	39
85°	13	30	80	87	89	14
90°	10	29	78	39	39	9
95°	98	385	1280	660	449	109
105°	352	533	2160	3279	3059	373
115°	625	759	1730	3451	3939	617
125°	870	975	1574	2659	3137	772
135°	1036	1141	1524	2146	2434	802
145°	1202	1279	1505	1831	1974	753
155°	1359	1396	1505	1652	1700	624
165°	1466	1486	1505	1564	1584	414
175°	1524	1524	1515	1535	1535	145
180°	1524	1524	1524	1524	1524	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1
2.5°	412.1	412.1	414.8	416.1	418.7	420.1	422.8	425.4	433.3	434.6	437.3
5°	401.5	406.9	424.0	430.7	449.2	474.4	485.0	502.2	538.1	548.6	555.3
7.5°	385.6	397.6	440.0	450.5	497.0	563.2	591.0	628.2	685.1	712.9	735.5
10°	360.4	385.6	461.2	486.4	561.9	662.6	714.3	766.0	852.1	890.5	905.1
12.5°	332.7	373.7	483.7	518.1	626.8	773.9	836.2	893.2	991.3	1042.9	1050.8
15°	300.8	356.5	504.9	555.3	695.7	866.7	935.6	1005.8	1097.3	1134.3	1143.6
17.5°	273.0	343.2	524.8	577.8	748.7	950.2	1020.4	1078.7	1152.9	1178.1	1184.7
20°	238.5	322.0	538.1	606.9	804.4	1011.1	1078.7	1123.8	1174.1	1190.0	1192.7
22.5°	213.3	299.5	546.0	617.5	841.5	1048.3	1105.2	1141.0	1175.4	1180.8	1182.0
25°	192.2	274.3	544.7	629.5	873.3	1070.8	1114.5	1141.0	1160.9	1163.6	1163.6
27.5°	172.3	246.5	539.3	632.1	897.2	1076.0	1110.5	1129.1	1138.4	1143.6	1143.6
30°	155.0	220.0	526.1	626.8	907.8	1070.8	1098.6	1107.8	1117.1	1125.1	1129.1
32.5°	141.8	194.8	506.3	616.2	909.1	1057.5	1077.4	1082.7	1095.9	1114.5	1121.1
35°	129.8	169.6	483.7	601.6	901.2	1036.3	1049.6	1054.9	1081.4	1109.2	1118.4
37.5°	118.0	151.1	454.6	576.5	889.2	1011.1	1020.4	1029.7	1070.8	1103.9	1114.5
40°	106.0	135.2	420.1	548.6	870.6	980.7	988.6	1003.2	1057.5	1095.9	1106.6
42.5°	96.7	121.9	382.9	519.5	846.8	946.2	958.2	979.3	1041.6	1082.7	1094.6
45°	88.8	108.7	343.2	479.7	816.3	910.4	927.6	956.8	1023.1	1062.8	1073.4
47.5°	80.8	99.4	302.1	438.7	783.2	874.7	897.2	930.3	997.9	1036.3	1045.6
50°	74.2	90.1	261.0	394.9	747.4	836.2	862.7	897.2	966.1	1001.8	1013.8
52.5°	68.9	82.2	222.6	351.1	706.3	796.4	827.0	862.7	927.6	962.1	970.0
55°	63.6	75.6	189.5	304.8	663.9	754.0	787.1	821.6	885.2	914.4	919.7
57.5°	61.0	70.2	161.6	261.0	618.9	706.3	743.5	775.3	834.9	857.4	862.7
60°	57.0	66.3	140.5	224.0	569.9	661.3	693.1	724.9	775.3	793.8	797.8
62.5°	53.1	63.6	124.6	188.2	519.5	608.3	640.0	669.3	711.7	724.9	730.2
65°	50.4	61.0	112.6	161.6	467.8	552.6	584.4	609.6	644.1	657.3	660.0
67.5°	47.7	58.3	103.3	139.1	416.1	497.0	520.8	544.7	571.2	584.4	585.7
70°	43.8	55.6	95.4	123.2	363.1	433.3	453.2	478.4	499.6	506.3	510.2
72.5°	41.1	51.7	90.1	111.3	308.8	372.4	391.0	405.5	424.0	430.7	430.7
75°	37.1	46.3	84.8	99.4	253.1	304.8	320.7	335.2	349.9	352.5	348.6
77.5°	33.1	41.1	72.9	83.5	197.5	241.2	254.4	262.4	274.3	276.9	278.3
80°	27.9	35.8	57.0	64.9	143.2	177.5	186.8	193.5	204.1	204.1	206.7
82.5°	21.2	27.9	41.1	46.3	96.7	121.9	129.8	133.9	140.5	140.5	140.5
85°	13.2	17.2	26.5	30.4	58.3	74.2	79.5	80.8	86.2	87.4	87.4
87.5°	6.6	9.3	17.2	18.6	30.4	38.4	38.4	41.1	41.1	39.7	38.4
90°	10.3	18.5	26.6	28.7	45.1	66.9	77.8	69.1	51.8	38.8	38.8
92.5°	40.9	110.5	180.1	197.5	277.6	384.4	437.9	383.7	275.6	194.3	186.6
95°	98.2	225.6	352.9	384.7	683.1	1081.0	1279.9	1142.1	866.6	659.9	636.5
97.5°	169.8	282.2	394.5	422.6	920.1	1583.6	1915.2	1828.2	1654.0	1523.4	1478.8
100°	225.1	326.9	428.8	454.3	1006.4	1742.5	2110.7	2117.0	2129.7	2139.3	2086.3
102.5°	272.1	367.1	462.2	486.0	1046.0	1792.6	2165.9	2276.8	2498.8	2665.1	2619.7
105°	351.9	432.4	512.9	533.0	1075.2	1798.3	2159.8	2408.4	2905.9	3279.0	3254.6
107.5°	433.8	508.8	583.8	602.6	1080.7	1718.2	2037.0	2383.9	3077.8	3598.2	3604.1
110°	489.1	556.8	624.6	641.5	1072.6	1647.3	1934.7	2322.6	3098.3	3680.0	3705.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	543.3	607.8	672.4	688.5	1072.9	1585.3	1841.5	2238.5	3032.4	3627.8	3667.0
115°	625.1	684.7	744.2	759.1	1082.7	1514.3	1730.1	2112.4	2877.3	3450.9	3505.1
117.5°	705.9	760.1	814.1	827.6	1102.9	1469.8	1653.3	1998.4	2688.6	3206.4	3266.5
120°	753.0	803.9	854.8	867.6	1119.2	1454.8	1622.6	1938.0	2568.6	3041.7	3100.0
122.5°	799.0	850.4	901.7	914.6	1142.7	1446.9	1599.1	1883.0	2451.0	2877.0	2934.6
125°	869.6	916.5	963.3	975.0	1174.4	1440.5	1573.5	1814.8	2297.2	2659.0	2712.1
127.5°	926.9	974.3	1021.5	1033.3	1206.2	1436.7	1552.0	1759.1	2173.4	2484.0	2528.8
130°	957.6	1008.6	1059.4	1072.2	1229.4	1439.0	1543.8	1728.2	2097.0	2373.6	2415.0
132.5°	989.3	1040.3	1091.1	1103.9	1248.1	1440.5	1536.6	1701.7	2031.8	2279.4	2316.5
135°	1036.4	1082.7	1129.2	1140.7	1268.6	1439.1	1524.4	1662.6	1939.0	2146.4	2178.3
137.5°	1084.4	1130.4	1176.3	1187.8	1299.3	1448.0	1522.3	1639.2	1873.0	2048.2	2074.4
140°	1124.3	1166.6	1208.9	1219.5	1318.1	1449.5	1515.2	1616.2	1818.0	1969.5	1993.9
142.5°	1155.1	1194.2	1233.2	1243.0	1333.7	1454.7	1515.2	1603.8	1781.2	1914.2	1935.2
145°	1202.1	1236.2	1270.4	1278.9	1354.3	1454.7	1504.9	1577.4	1722.6	1831.4	1847.3
147.5°	1249.2	1282.4	1315.6	1323.9	1384.3	1464.7	1504.9	1562.0	1676.1	1761.8	1774.9
150°	1279.9	1309.9	1339.9	1347.4	1399.9	1469.9	1504.9	1553.1	1649.6	1721.9	1732.6
152.5°	1311.6	1334.3	1357.0	1362.7	1410.2	1473.3	1504.9	1546.1	1628.4	1690.2	1698.3
155°	1358.7	1375.5	1392.3	1396.5	1432.7	1480.8	1504.9	1537.7	1603.2	1652.3	1657.7
157.5°	1393.5	1409.8	1426.2	1430.2	1455.1	1488.3	1504.9	1530.4	1581.3	1619.5	1623.3
160°	1417.0	1429.7	1442.5	1445.6	1465.4	1491.8	1504.9	1526.8	1570.4	1603.1	1605.3
162.5°	1440.5	1450.0	1459.6	1461.9	1476.3	1495.3	1504.9	1523.3	1560.2	1587.8	1589.9
165°	1466.1	1474.8	1483.4	1485.6	1492.0	1500.6	1504.9	1518.2	1544.5	1564.3	1566.5
167.5°	1489.6	1493.7	1497.8	1498.8	1504.2	1511.5	1515.2	1523.8	1541.1	1554.0	1554.9
170°	1504.9	1509.1	1513.2	1514.2	1514.5	1515.0	1515.2	1523.8	1541.1	1554.0	1554.0
172.5°	1513.1	1514.0	1515.0	1515.2	1515.2	1515.2	1515.2	1522.0	1535.6	1545.9	1545.1
175°	1524.4	1524.4	1524.4	1524.4	1521.3	1517.3	1515.2	1519.5	1528.1	1534.7	1534.7
177.5°	1524.4	1524.4	1524.4	1524.4	1522.0	1518.9	1517.3	1520.6	1527.4	1532.6	1531.7
180°	1524.4	1524.4	1524.4	1524.4	1524.4	1524.4	1524.4	1524.4	1524.4	1524.4	1524.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	412.1	412.1
2.5°	440.0	437.3
5°	565.8	568.5
7.5°	761.9	760.7
10°	947.5	959.4
12.5°	1082.7	1085.3
15°	1164.9	1170.2
17.5°	1196.7	1198.0
20°	1198.0	1195.3
22.5°	1183.4	1180.8
25°	1166.1	1164.9
27.5°	1150.2	1151.6
30°	1143.6	1147.7
32.5°	1143.6	1150.2
35°	1146.3	1152.9
37.5°	1145.0	1152.9
40°	1139.7	1148.9
42.5°	1125.1	1131.8
45°	1102.6	1110.5
47.5°	1073.4	1078.7
50°	1036.3	1041.6
52.5°	989.9	991.3
55°	934.3	939.6
57.5°	874.7	876.0
60°	808.4	812.3
62.5°	738.1	738.1
65°	663.9	666.6
67.5°	587.1	593.7
70°	508.9	510.2
72.5°	432.1	432.1
75°	352.5	353.8
77.5°	276.9	276.9
80°	205.4	206.7
82.5°	141.8	144.4
85°	88.8	88.8
87.5°	41.1	37.1
90°	38.8	38.8
92.5°	155.7	124.8
95°	542.8	449.1
97.5°	1300.6	1122.4
100°	1873.8	1661.5
102.5°	2437.8	2255.9
105°	3156.8	3059.0
107.5°	3627.7	3651.4
110°	3807.4	3909.2





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3823.4	3979.8
115°	3722.0	3938.9
117.5°	3507.0	3747.6
120°	3333.8	3567.5
122.5°	3165.2	3395.7
125°	2924.5	3136.8
127.5°	2708.0	2887.1
130°	2580.5	2745.9
132.5°	2464.8	2613.0
135°	2306.2	2433.9
137.5°	2178.9	2283.6
140°	2091.7	2189.4
142.5°	2019.3	2103.5
145°	1910.9	1974.5
147.5°	1827.7	1880.5
150°	1775.3	1818.0
152.5°	1730.5	1762.8
155°	1679.0	1700.3
157.5°	1638.3	1653.3
160°	1613.9	1622.6
162.5°	1598.1	1606.3
165°	1575.1	1583.8
167.5°	1558.6	1562.2
170°	1554.0	1554.0
172.5°	1541.9	1538.7
175°	1534.7	1534.7
177.5°	1528.0	1524.4
180°	1524.4	1524.4



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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	0.24	0.93	1.39	2.06	3.66	13.42	14.11	14.57	15.25	16.84
	3H	0.93	1.55	2.08	2.69	4.30	15.25	15.86	16.40	17.01	18.62
	4H	1.22	1.81	2.38	2.95	4.57	15.88	16.47	17.05	17.62	19.23
	6H	1.46	2.00	2.63	3.15	4.77	16.31	16.84	17.48	17.99	19.62
	8H	1.53	2.04	2.70	3.20	4.82	16.42	16.93	17.59	18.10	19.71
	12H	1.54	2.02	2.71	3.18	4.82	16.48	16.97	17.66	18.13	19.77
4H	2H	7.44	8.02	8.61	9.17	10.78	13.67	14.26	14.84	15.40	17.02
	3H	8.99	9.48	10.16	10.65	12.27	15.70	16.19	16.88	17.36	18.99
	4H	9.07	9.53	10.25	10.68	12.33	16.46	16.91	17.64	18.07	19.72
	6H	9.07	9.46	10.26	10.64	12.28	16.99	17.38	18.17	18.56	20.19
	8H	9.05	9.41	10.23	10.58	12.23	17.15	17.51	18.33	18.68	20.33
	12H	8.99	9.32	10.19	10.51	12.16	17.23	17.56	18.43	18.74	20.40
8H	4H	10.50	10.86	11.68	12.04	13.69	16.51	16.87	17.69	18.04	19.69
	6H	10.74	11.04	11.94	12.25	13.90	17.13	17.43	18.33	18.64	20.29
	8H	10.75	11.01	11.96	12.21	13.87	17.35	17.61	18.55	18.80	20.47
	12H	10.71	10.94	11.92	12.13	13.83	17.48	17.71	18.69	18.90	20.60
12H	4H	10.64	10.97	11.84	12.15	13.81	16.45	16.78	17.65	17.96	19.62
	6H	10.99	11.25	12.20	12.45	14.11	17.11	17.37	18.31	18.56	20.23
	8H	11.05	11.28	12.26	12.47	14.17	17.33	17.56	18.54	18.75	20.45