

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: P938545

Luminaire Tested: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

**Test Information**

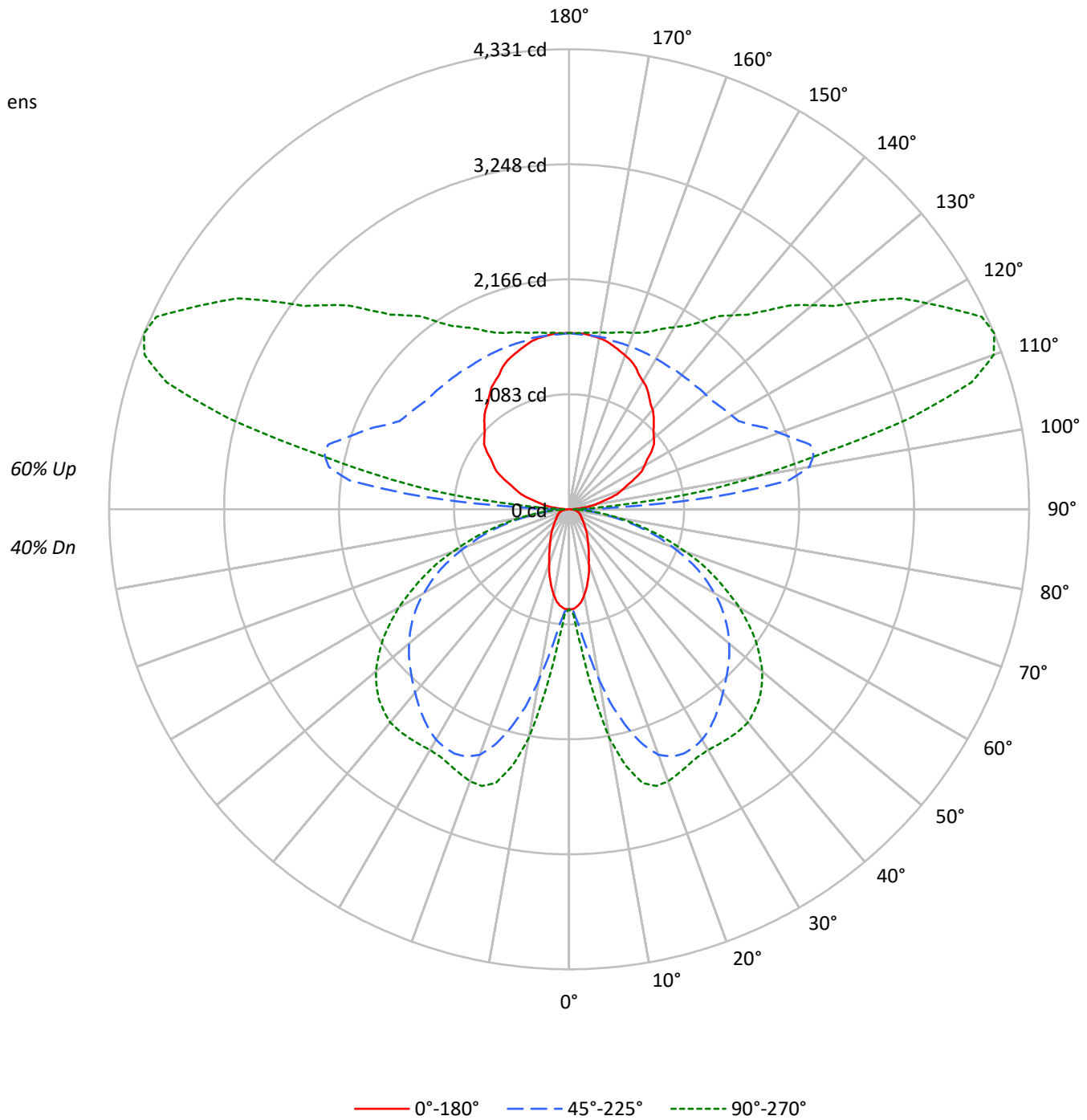
Test Method: LM-79-2019  
Report Number: P938545  
REPORT IS A COMBINATION OF REPORTS P933648 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-8-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18030.0 lumens  
Efficiency: N/A  
Efficacy: 108.4 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: General Diffuse  
  
Input Watts (W): 166.4  
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	8

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

	0°	45°	90°
0°	4359	4359	4359
5°	4259	5039	5860
10°	3863	7344	9715
15°	3283	9595	11730
20°	2673	11120	11954
25°	2230	11636	11712
30°	1880	11709	11690
35°	1663	11515	11992
40°	1449	11263	12304
45°	1312	11077	12352
50°	1203	10911	12148
55°	1153	10667	11609
60°	1180	10198	10759
65°	1227	9486	9591
70°	1308	8273	8103
75°	1449	6745	6323
80°	1584	4678	4261
85°	1407	2482	2180

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12352 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.5	0.7
10°-20°	538.7	3.0
20°-30°	942.2	5.2
30°-40°	1212.9	6.7
40°-50°	1354.8	7.5
50°-60°	1297.6	7.2
60°-70°	1028.3	5.7
70°-80°	604.7	3.4
80°-90°	174.3	1.0
90°-100°	808.7	4.5
100°-110°	2126.2	11.8
110°-120°	2204.6	12.2
120°-130°	1768.3	9.8
130°-140°	1387.5	7.7
140°-150°	1065.0	5.9
150°-160°	767.0	4.3
160°-170°	469.3	2.6
170°-180°	158.5	0.9
0°-30°	1602.4	8.9
0°-40°	2815.3	15.6
0°-60°	5467.6	30.3
0°-90°	7274.9	40.3
90°-120°	5139.5	28.5
90°-150°	9360.3	51.9
90°-180°	10755.0	59.7
0°-180°	18030.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	915	982	1106	1251	1296	84
15°	686	1266	2133	2586	2668	191
25°	438	1435	2541	2653	2656	202
35°	296	1372	2393	2529	2628	185
45°	202	1094	2115	2423	2532	157
55°	145	695	1795	2085	2142	132
65°	115	369	1332	1498	1520	114
75°	85	226	731	804	807	89
85°	30	69	181	199	202	32
90°	11	31	85	42	42	11
95°	107	419	1393	718	489	119
105°	383	580	2350	3569	3329	406
115°	680	826	1883	3756	4287	672
125°	946	1061	1712	2894	3414	840
135°	1128	1242	1659	2336	2649	873
145°	1308	1392	1638	1993	2149	820
155°	1479	1520	1638	1798	1851	679
165°	1596	1617	1638	1702	1724	450
175°	1659	1659	1649	1670	1670	157
180°	1659	1659	1659	1659	1659	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6
2.5°	939.6	939.6	945.6	948.7	954.7	957.7	963.8	969.8	988.0	991.0	997.0
5°	915.4	927.5	966.8	981.9	1024.2	1081.6	1105.8	1145.1	1226.5	1250.7	1265.8
7.5°	879.1	906.4	1003.0	1027.2	1132.9	1284.0	1347.4	1432.0	1561.9	1625.4	1676.8
10°	821.7	879.1	1051.3	1108.7	1281.0	1510.6	1628.4	1746.2	1942.6	2030.3	2063.5
12.5°	758.3	852.0	1102.7	1181.3	1429.0	1764.4	1906.4	2036.2	2259.8	2377.7	2395.8
15°	685.8	812.7	1151.0	1265.8	1586.1	1975.8	2132.9	2293.1	2501.6	2586.1	2607.3
17.5°	622.3	782.5	1196.4	1317.2	1707.0	2166.2	2326.3	2459.3	2628.4	2685.8	2700.9
20°	543.8	734.2	1226.5	1383.7	1833.9	2305.2	2459.3	2561.9	2676.8	2713.0	2719.0
22.5°	486.4	682.8	1244.8	1407.8	1918.4	2389.7	2519.7	2601.2	2679.7	2691.9	2694.9
25°	438.1	625.4	1241.7	1435.1	1991.0	2441.1	2540.8	2601.2	2646.5	2652.6	2652.6
27.5°	392.8	561.9	1229.6	1441.1	2045.3	2453.2	2531.7	2574.0	2595.2	2607.3	2607.3
30°	353.5	501.5	1199.4	1429.0	2069.5	2441.1	2504.5	2525.7	2546.8	2564.9	2574.0
32.5°	323.3	444.1	1154.1	1404.8	2072.5	2410.9	2456.2	2468.3	2498.5	2540.8	2555.9
35°	296.1	386.7	1102.7	1371.6	2054.4	2362.6	2392.8	2404.8	2465.2	2528.7	2549.9
37.5°	268.9	344.4	1036.2	1314.2	2027.2	2305.2	2326.3	2347.4	2441.1	2516.7	2540.8
40°	241.7	308.1	957.7	1250.7	1984.9	2235.7	2253.8	2287.0	2410.9	2498.5	2522.6
42.5°	220.6	278.0	873.2	1184.3	1930.6	2157.1	2184.3	2232.6	2374.6	2468.3	2495.5
45°	202.4	247.7	782.5	1093.6	1861.0	2075.5	2114.8	2181.3	2332.3	2423.0	2447.1
47.5°	184.3	226.5	688.8	1000.0	1785.5	1993.9	2045.3	2120.9	2274.9	2362.6	2383.7
50°	169.2	205.5	595.2	900.3	1703.9	1906.4	1966.8	2045.3	2202.5	2284.0	2311.2
52.5°	157.1	187.3	507.5	800.6	1610.3	1815.7	1885.2	1966.8	2114.8	2193.3	2211.5
55°	145.1	172.2	432.0	694.9	1513.6	1719.0	1794.6	1873.2	2018.1	2084.6	2096.7
57.5°	139.0	160.1	368.6	595.2	1410.9	1610.3	1694.9	1767.4	1903.3	1954.7	1966.8
60°	129.9	151.0	320.3	510.6	1299.1	1507.5	1580.0	1652.6	1767.4	1809.7	1818.7
62.5°	120.9	145.1	284.0	429.0	1184.3	1386.7	1459.3	1525.7	1622.3	1652.6	1664.6
65°	114.8	139.0	256.8	368.6	1066.5	1259.8	1332.3	1389.7	1468.3	1498.5	1504.5
67.5°	108.7	132.9	235.7	317.2	948.7	1132.9	1187.3	1241.7	1302.2	1332.3	1335.4
70°	99.7	126.9	217.5	281.0	827.8	988.0	1033.2	1090.6	1139.0	1154.1	1163.2
72.5°	93.6	117.8	205.5	253.8	703.9	849.0	891.3	924.5	966.8	981.9	981.9
75°	84.6	105.8	193.3	226.5	577.1	694.9	731.1	764.4	797.6	803.6	794.6
77.5°	75.5	93.6	166.2	190.3	450.1	549.9	580.0	598.2	625.4	631.4	634.5
80°	63.5	81.6	129.9	148.0	326.3	404.8	426.0	441.1	465.2	465.2	471.3
82.5°	48.4	63.5	93.6	105.8	220.6	278.0	296.1	305.1	320.3	320.3	320.3
85°	30.2	39.3	60.4	69.4	132.9	169.2	181.3	184.3	196.4	199.4	199.4
87.5°	15.1	21.2	39.3	42.3	69.4	87.7	87.7	93.6	93.6	90.6	87.7
90°	11.2	20.1	28.9	31.2	49.0	72.7	84.6	75.2	56.4	42.3	42.3
92.5°	44.5	120.2	196.0	214.9	302.2	418.5	476.6	417.7	299.9	211.6	203.2
95°	106.9	245.5	384.0	418.6	743.4	1176.4	1392.9	1243.0	943.1	718.2	692.7
97.5°	184.9	307.1	429.4	459.9	1001.4	1723.5	2084.4	1989.6	1800.1	1658.0	1609.5
100°	244.9	355.8	466.7	494.4	1095.3	1896.5	2297.1	2304.0	2317.9	2328.2	2270.5
102.5°	296.2	399.6	503.0	528.9	1138.4	1950.9	2357.2	2478.0	2719.5	2900.6	2851.1
105°	383.0	470.6	558.2	580.1	1170.2	1957.1	2350.5	2621.3	3162.6	3568.7	3542.1
107.5°	472.1	553.8	635.4	655.8	1176.2	1870.0	2216.9	2594.5	3349.7	3916.1	3922.5
110°	532.3	606.0	679.7	698.1	1167.3	1792.8	2105.6	2527.7	3372.0	4005.2	4032.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	591.3	661.5	731.8	749.4	1167.6	1725.3	2004.2	2436.2	3300.3	3948.3	3990.9
115°	680.4	745.2	810.0	826.2	1178.4	1648.0	1882.9	2299.0	3131.4	3755.7	3814.7
117.5°	768.3	827.2	886.1	900.8	1200.3	1599.7	1799.3	2175.0	2926.2	3489.6	3555.0
120°	819.5	874.9	930.4	944.2	1218.2	1583.3	1766.0	2109.2	2795.6	3310.4	3373.9
122.5°	869.6	925.6	981.4	995.4	1243.8	1574.8	1740.3	2049.4	2667.5	3131.0	3193.8
125°	946.4	997.4	1048.4	1061.1	1278.2	1567.7	1712.5	1975.0	2500.1	2893.9	2951.6
127.5°	1008.8	1060.3	1111.8	1124.6	1312.8	1563.7	1689.1	1914.5	2365.4	2703.5	2752.2
130°	1042.2	1097.7	1153.1	1166.9	1338.0	1566.1	1680.2	1880.8	2282.3	2583.2	2628.3
132.5°	1076.8	1132.2	1187.6	1201.5	1358.5	1567.8	1672.4	1852.0	2211.3	2480.8	2521.1
135°	1127.9	1178.4	1229.0	1241.5	1380.7	1566.3	1659.0	1809.5	2110.4	2336.1	2370.8
137.5°	1180.3	1230.3	1280.2	1292.7	1414.1	1575.9	1656.9	1784.1	2038.4	2229.1	2257.6
140°	1223.7	1269.8	1315.7	1327.2	1434.5	1577.5	1649.0	1758.9	1978.7	2143.4	2170.0
142.5°	1257.1	1299.7	1342.2	1352.9	1451.6	1583.2	1649.0	1745.5	1938.5	2083.3	2106.1
145°	1308.3	1345.4	1382.6	1391.9	1473.9	1583.2	1637.9	1716.8	1874.7	1993.1	2010.4
147.5°	1359.5	1395.7	1431.9	1440.9	1506.6	1594.1	1637.9	1700.0	1824.2	1917.3	1931.7
150°	1392.9	1425.6	1458.3	1466.4	1523.5	1599.8	1637.9	1690.4	1795.2	1874.0	1885.6
152.5°	1427.5	1452.2	1477.0	1483.2	1534.8	1603.5	1637.9	1682.7	1772.2	1839.4	1848.2
155°	1478.7	1497.0	1515.3	1519.9	1559.2	1611.6	1637.9	1673.5	1744.8	1798.3	1804.1
157.5°	1516.6	1534.4	1552.2	1556.6	1583.7	1619.8	1637.9	1665.6	1721.1	1762.7	1766.8
160°	1542.2	1556.0	1569.9	1573.3	1594.8	1623.5	1637.9	1661.6	1709.2	1744.8	1747.1
162.5°	1567.8	1578.2	1588.6	1591.2	1606.7	1627.5	1637.9	1658.0	1698.0	1728.1	1730.3
165°	1595.6	1604.9	1614.4	1616.7	1623.8	1633.1	1637.9	1652.2	1681.0	1702.5	1704.8
167.5°	1621.2	1625.6	1630.1	1631.3	1637.2	1645.1	1649.0	1658.4	1677.2	1691.3	1692.3
170°	1637.9	1642.3	1646.8	1648.0	1648.3	1648.8	1649.0	1658.4	1677.2	1691.3	1691.3
172.5°	1646.8	1647.8	1648.8	1649.0	1649.0	1649.0	1649.0	1656.4	1671.3	1682.4	1681.5
175°	1659.0	1659.0	1659.0	1659.0	1655.7	1651.3	1649.0	1653.8	1663.1	1670.2	1670.2
177.5°	1659.0	1659.0	1659.0	1659.0	1656.4	1653.0	1651.3	1655.0	1662.4	1667.9	1667.0
180°	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	939.6	939.6
2.5°	1003.0	997.0
5°	1290.0	1296.1
7.5°	1737.1	1734.2
10°	2160.1	2187.4
12.5°	2468.3	2474.3
15°	2655.6	2667.7
17.5°	2728.1	2731.1
20°	2731.1	2725.1
22.5°	2697.9	2691.9
25°	2658.7	2655.6
27.5°	2622.3	2625.4
30°	2607.3	2616.4
32.5°	2607.3	2622.3
35°	2613.3	2628.4
37.5°	2610.3	2628.4
40°	2598.2	2619.4
42.5°	2564.9	2580.1
45°	2513.6	2531.7
47.5°	2447.1	2459.3
50°	2362.6	2374.6
52.5°	2256.8	2259.8
55°	2129.9	2142.0
57.5°	1993.9	1997.0
60°	1842.9	1852.0
62.5°	1682.8	1682.8
65°	1513.6	1519.7
67.5°	1338.4	1353.5
70°	1160.1	1163.2
72.5°	984.9	984.9
75°	803.6	806.7
77.5°	631.4	631.4
80°	468.3	471.3
82.5°	323.3	329.3
85°	202.4	202.4
87.5°	93.6	84.6
90°	42.3	42.3
92.5°	169.5	135.9
95°	590.7	488.8
97.5°	1415.4	1221.5
100°	2039.4	1808.3
102.5°	2653.1	2455.2
105°	3435.7	3329.3
107.5°	3948.2	3973.9
110°	4143.7	4254.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4161.1	4331.3
115°	4050.8	4286.8
117.5°	3816.8	4078.6
120°	3628.3	3882.6
122.5°	3444.7	3695.6
125°	3182.8	3413.9
127.5°	2947.3	3142.2
130°	2808.5	2988.6
132.5°	2682.4	2843.8
135°	2509.9	2648.9
137.5°	2371.4	2485.2
140°	2276.4	2382.8
142.5°	2197.7	2289.3
145°	2079.7	2149.0
147.5°	1989.1	2046.5
150°	1932.2	1978.7
152.5°	1883.3	1918.5
155°	1827.4	1850.6
157.5°	1783.0	1799.3
160°	1756.6	1766.0
162.5°	1739.2	1748.1
165°	1714.3	1723.6
167.5°	1696.3	1700.3
170°	1691.3	1691.3
172.5°	1678.1	1674.6
175°	1670.2	1670.2
177.5°	1663.0	1659.0
180°	1659.0	1659.0



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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	5.17	5.98	6.20	7.02	8.42	18.35	19.16	19.38	20.20	21.60
	3H	5.87	6.60	6.91	7.65	9.07	20.18	20.91	21.22	21.96	23.38
	4H	6.17	6.86	7.22	7.91	9.33	20.83	21.52	21.88	22.57	23.99
	6H	6.41	7.05	7.47	8.11	9.54	21.25	21.89	22.31	22.95	24.38
	8H	6.48	7.09	7.55	8.16	9.59	21.37	21.98	22.44	23.05	24.48
	12H	6.50	7.07	7.57	8.14	9.60	21.44	22.02	22.51	23.08	24.54
4H	2H	12.38	13.07	13.44	14.12	15.55	18.62	19.31	19.67	20.36	21.78
	3H	13.94	14.52	15.01	15.60	17.04	20.66	21.23	21.72	22.31	23.75
	4H	14.03	14.56	15.10	15.63	17.09	21.42	21.95	22.49	23.02	24.48
	6H	14.04	14.50	15.12	15.59	17.05	21.96	22.41	23.04	23.51	24.96
	8H	14.02	14.44	15.10	15.53	17.00	22.12	22.54	23.20	23.63	25.10
	12H	13.97	14.36	15.07	15.46	16.93	22.21	22.59	23.31	23.69	25.17
8H	4H	15.47	15.90	16.55	16.99	18.46	21.48	21.90	22.56	22.99	24.46
	6H	15.71	16.07	16.82	17.19	18.66	22.10	22.46	23.21	23.58	25.05
	8H	15.73	16.04	16.84	17.15	18.64	22.32	22.63	23.43	23.74	25.23
	12H	15.70	15.97	16.81	17.07	18.60	22.46	22.74	23.58	23.84	25.37
12H	4H	15.61	16.00	16.71	17.10	18.58	21.43	21.81	22.53	22.91	24.39
	6H	15.97	16.28	17.08	17.39	18.88	22.09	22.40	23.20	23.51	24.99
	8H	16.04	16.31	17.15	17.42	18.94	22.31	22.59	23.43	23.69	25.22