

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: P938589

Luminaire Tested: SQ4-FB-150U-125D-B2750-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

**Test Information**

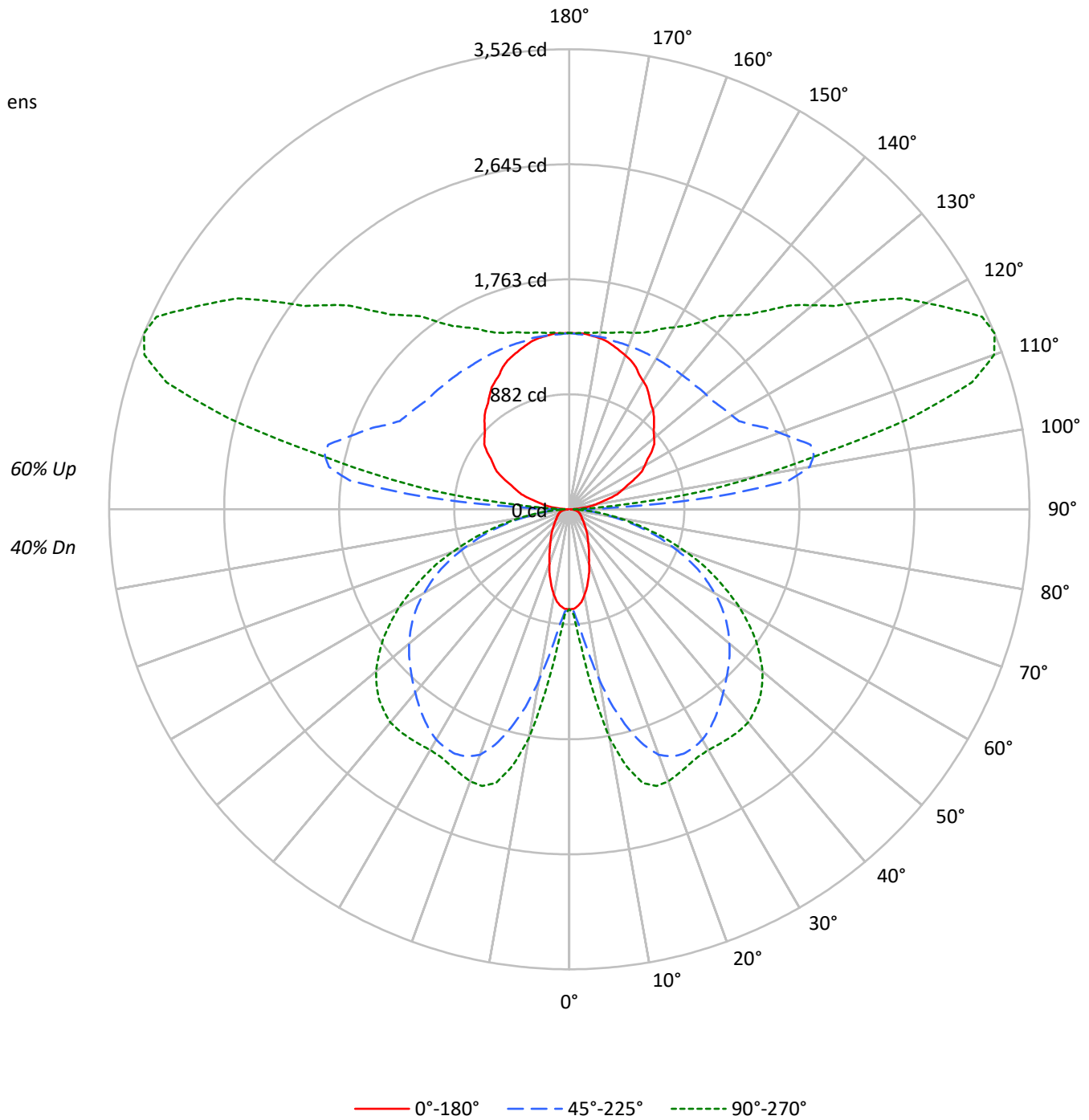
Test Method: LM-79-2019  
Report Number: P938589  
REPORT IS A COMBINATION OF REPORTS P933640 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-B2750-1D-UNV-STD-W-6-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14679.4 lumens  
Efficiency: N/A  
Efficacy: 117.6 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: General Diffuse  
  
Input Watts (W): 124.8  
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°	4732	4732	4732
5°	4621	5468	6361
10°	4190	7969	10545
15°	3560	10408	12733
20°	2897	12058	12977
25°	2416	12616	12713
30°	2036	12692	12689
35°	1800	12478	13017
40°	1567	12201	13356
45°	1418	11996	13409
50°	1299	11812	13187
55°	1243	11544	12602
60°	1271	11032	11679
65°	1321	10256	10411
70°	1404	8938	8796
75°	1550	7282	6863
80°	1679	5043	4625
85°	1467	2671	2367

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13409 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.0	0.7
10°-20°	438.5	3.0
20°-30°	767.1	5.2
30°-40°	987.5	6.7
40°-50°	1103.0	7.5
50°-60°	1056.4	7.2
60°-70°	837.2	5.7
70°-80°	492.3	3.4
80°-90°	141.9	1.0
90°-100°	658.4	4.5
100°-110°	1731.1	11.8
110°-120°	1794.9	12.2
120°-130°	1439.7	9.8
130°-140°	1129.7	7.7
140°-150°	867.1	5.9
150°-160°	624.4	4.3
160°-170°	382.1	2.6
170°-180°	129.1	0.9
0°-30°	1304.6	8.9
0°-40°	2292.1	15.6
0°-60°	4451.4	30.3
0°-90°	5922.8	40.3
90°-120°	4184.4	28.5
90°-150°	7621.0	51.9
90°-180°	8757.0	59.7
0°-180°	14679.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	745	799	900	1018	1055	69
15°	558	1031	1736	2105	2172	155
25°	357	1168	2069	2160	2162	164
35°	241	1117	1948	2059	2140	151
45°	165	890	1722	1973	2061	127
55°	118	566	1461	1697	1744	108
65°	94	300	1085	1220	1237	93
75°	69	184	595	654	657	72
85°	25	57	148	162	165	26
90°	9	25	69	34	34	9
95°	87	341	1134	585	398	97
105°	312	472	1914	2906	2711	331
115°	554	673	1533	3058	3490	547
125°	770	864	1394	2356	2780	684
135°	918	1011	1351	1902	2157	711
145°	1065	1133	1334	1623	1750	667
155°	1204	1237	1334	1464	1507	553
165°	1299	1316	1334	1386	1403	367
175°	1351	1351	1343	1360	1360	128
180°	1351	1351	1351	1351	1351	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	764.9	764.9	764.9	764.9	764.9	764.9	764.9	764.9	764.9	764.9	764.9
2.5°	764.9	764.9	769.9	772.3	777.2	779.8	784.6	789.5	804.3	806.8	811.7
5°	745.3	755.1	787.1	799.4	833.8	880.5	900.2	932.2	998.7	1018.3	1030.6
7.5°	715.8	737.9	816.6	836.2	922.4	1045.4	1097.0	1165.9	1271.6	1323.3	1365.1
10°	669.0	715.8	855.9	902.7	1042.9	1229.9	1325.8	1421.7	1581.6	1652.9	1680.0
12.5°	617.3	693.6	897.8	961.7	1163.4	1436.4	1552.0	1657.8	1839.8	1935.8	1950.5
15°	558.3	661.6	937.1	1030.6	1291.3	1608.6	1736.5	1866.9	2036.6	2105.4	2122.7
17.5°	506.7	637.0	974.0	1072.4	1389.7	1763.6	1893.9	2002.1	2139.9	2186.6	2199.0
20°	442.7	597.7	998.7	1126.6	1493.0	1876.8	2002.1	2085.8	2179.3	2208.7	2213.7
22.5°	396.0	555.9	1013.4	1146.2	1561.9	1945.6	2051.4	2117.7	2181.7	2191.6	2194.0
25°	356.7	509.1	1011.0	1168.3	1620.9	1987.4	2068.6	2117.7	2154.7	2159.6	2159.6
27.5°	319.8	457.5	1001.1	1173.3	1665.2	1997.2	2061.2	2095.7	2112.8	2122.7	2122.7
30°	287.8	408.3	976.5	1163.4	1684.9	1987.4	2039.1	2056.3	2073.5	2088.3	2095.7
32.5°	263.2	361.5	939.5	1143.7	1687.3	1962.8	1999.7	2009.5	2034.1	2068.6	2080.8
35°	241.1	314.8	897.8	1116.7	1672.6	1923.5	1948.1	1957.9	2007.1	2058.7	2076.0
37.5°	218.9	280.4	843.7	1070.0	1650.4	1876.8	1893.9	1911.2	1987.4	2048.9	2068.6
40°	196.8	250.9	779.8	1018.3	1616.0	1820.2	1834.9	1861.9	1962.8	2034.1	2053.8
42.5°	179.6	226.3	710.9	964.2	1571.7	1756.2	1778.3	1817.7	1933.3	2009.5	2031.7
45°	164.8	201.6	637.0	890.4	1515.1	1689.7	1721.7	1775.9	1898.9	1972.7	1992.4
47.5°	150.0	184.5	560.8	814.2	1453.7	1623.4	1665.2	1726.7	1852.1	1923.5	1940.7
50°	137.7	167.2	484.6	733.0	1387.2	1552.0	1601.3	1665.2	1793.1	1859.5	1881.6
52.5°	127.9	152.5	413.2	651.8	1311.0	1478.2	1534.8	1601.3	1721.7	1785.7	1800.5
55°	118.0	140.2	351.7	565.7	1232.3	1399.5	1461.1	1525.0	1643.0	1697.2	1707.0
57.5°	113.2	130.3	300.1	484.6	1148.7	1311.0	1379.9	1438.9	1549.6	1591.4	1601.3
60°	105.7	123.0	260.8	415.7	1057.7	1227.3	1286.4	1345.5	1438.9	1473.4	1480.7
62.5°	98.4	118.0	231.2	349.2	964.2	1129.0	1188.0	1242.2	1320.8	1345.5	1355.2
65°	93.5	113.2	209.1	300.1	868.2	1025.7	1084.7	1131.4	1195.4	1220.0	1224.9
67.5°	88.6	108.2	191.9	258.2	772.3	922.4	966.7	1011.0	1060.1	1084.7	1087.2
70°	81.2	103.3	177.1	228.8	673.9	804.3	841.2	887.9	927.3	939.5	947.0
72.5°	76.3	95.9	167.2	206.6	573.1	691.2	725.6	752.6	787.1	799.4	799.4
75°	68.9	86.0	157.5	184.5	469.8	565.7	595.3	622.3	649.3	654.3	646.9
77.5°	61.5	76.3	135.3	154.9	366.5	447.7	472.3	487.0	509.1	514.1	516.6
80°	51.6	66.4	105.7	120.5	265.6	329.6	346.8	359.1	378.8	378.8	383.7
82.5°	39.3	51.6	76.3	86.0	179.6	226.3	241.1	248.5	260.8	260.8	260.8
85°	24.6	32.0	49.2	56.6	108.2	137.7	147.6	150.0	159.9	162.3	162.3
87.5°	12.3	17.2	32.0	34.4	56.6	71.3	71.3	76.3	76.3	73.8	71.3
90°	9.1	16.4	23.5	25.4	39.9	59.2	68.9	61.2	45.9	34.5	34.5
92.5°	36.2	97.9	159.6	175.0	246.0	340.7	388.0	340.0	244.2	172.3	165.4
95°	87.0	199.8	312.7	340.9	605.3	957.9	1134.1	1012.0	767.8	584.7	564.0
97.5°	150.5	250.0	349.5	374.4	815.3	1403.2	1697.1	1620.0	1465.6	1349.9	1310.4
100°	199.4	289.7	379.9	402.5	891.8	1544.1	1870.3	1875.9	1887.2	1895.7	1848.7
102.5°	241.2	325.4	409.6	430.6	926.8	1588.4	1919.2	2017.5	2214.1	2361.5	2321.2
105°	311.8	383.1	454.5	472.3	952.8	1593.4	1913.8	2134.1	2574.9	2905.5	2883.8
107.5°	384.4	450.9	517.3	533.9	957.6	1522.5	1805.0	2112.4	2727.3	3188.4	3193.6
110°	433.3	493.4	553.4	568.4	950.4	1459.6	1714.3	2058.0	2745.4	3260.9	3283.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	481.4	538.6	595.7	610.1	950.7	1404.8	1631.8	1983.5	2687.0	3214.7	3249.3
115°	553.9	606.7	659.5	672.7	959.4	1341.8	1533.0	1871.8	2549.5	3057.8	3105.8
117.5°	625.5	673.5	721.4	733.4	977.3	1302.4	1465.0	1770.8	2382.4	2841.1	2894.4
120°	667.3	712.4	757.6	768.8	991.8	1289.2	1437.8	1717.3	2276.1	2695.2	2746.9
122.5°	708.0	753.6	799.1	810.5	1012.6	1282.2	1417.0	1668.6	2171.8	2549.2	2600.3
125°	770.5	812.0	853.6	864.0	1040.7	1276.5	1394.3	1608.1	2035.5	2356.1	2403.1
127.5°	821.3	863.2	905.1	915.6	1068.8	1273.1	1375.2	1558.7	1925.8	2201.1	2240.8
130°	848.6	893.7	938.9	950.1	1089.4	1275.2	1368.0	1531.4	1858.2	2103.2	2139.8
132.5°	876.7	921.8	967.0	978.2	1106.0	1276.5	1361.6	1507.9	1800.4	2019.8	2052.6
135°	918.3	959.4	1000.6	1010.9	1124.1	1275.2	1350.8	1473.3	1718.2	1902.0	1930.2
137.5°	961.0	1001.7	1042.4	1052.5	1151.4	1283.1	1348.9	1452.5	1659.6	1814.9	1838.1
140°	996.3	1033.8	1071.2	1080.6	1167.9	1284.4	1342.6	1432.1	1611.0	1745.2	1766.8
142.5°	1023.5	1058.1	1092.8	1101.5	1181.9	1289.1	1342.6	1421.2	1578.3	1696.1	1714.7
145°	1065.2	1095.5	1125.7	1133.2	1200.0	1289.1	1333.5	1397.8	1526.4	1622.8	1636.8
147.5°	1106.9	1136.3	1165.7	1173.1	1226.6	1297.9	1333.5	1384.1	1485.2	1561.1	1572.8
150°	1134.1	1160.7	1187.2	1193.9	1240.4	1302.5	1333.5	1376.3	1461.6	1525.7	1535.2
152.5°	1162.2	1182.4	1202.5	1207.6	1249.5	1305.5	1333.5	1370.0	1442.9	1497.6	1504.8
155°	1203.9	1218.8	1233.7	1237.4	1269.5	1312.2	1333.5	1362.5	1420.6	1464.1	1468.8
157.5°	1234.7	1249.2	1263.8	1267.4	1289.4	1318.8	1333.5	1356.1	1401.3	1435.1	1438.4
160°	1255.6	1266.9	1278.1	1280.9	1298.5	1321.8	1333.5	1352.9	1391.6	1420.6	1422.5
162.5°	1276.5	1284.9	1293.3	1295.5	1308.1	1325.1	1333.5	1349.8	1382.5	1407.0	1408.8
165°	1299.1	1306.8	1314.4	1316.3	1322.0	1329.7	1333.5	1345.3	1368.6	1386.2	1388.1
167.5°	1320.0	1323.6	1327.2	1328.1	1333.0	1339.4	1342.6	1350.3	1365.6	1377.0	1377.8
170°	1333.5	1337.1	1340.8	1341.7	1342.0	1342.5	1342.6	1350.3	1365.6	1377.0	1377.0
172.5°	1340.8	1341.6	1342.5	1342.6	1342.6	1342.6	1342.6	1348.7	1360.8	1369.8	1369.1
175°	1350.8	1350.8	1350.8	1350.8	1348.1	1344.5	1342.6	1346.4	1354.1	1359.8	1359.8
177.5°	1350.8	1350.8	1350.8	1350.8	1348.7	1345.8	1344.4	1347.4	1353.5	1358.1	1357.3
180°	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	764.9	764.9
2.5°	816.6	811.7
5°	1050.3	1055.2
7.5°	1414.4	1411.8
10°	1758.6	1780.8
12.5°	2009.5	2014.5
15°	2162.0	2171.9
17.5°	2221.0	2223.6
20°	2223.6	2218.6
22.5°	2196.4	2191.6
25°	2164.5	2162.0
27.5°	2135.0	2137.4
30°	2122.7	2130.1
32.5°	2122.7	2135.0
35°	2127.6	2139.9
37.5°	2125.1	2139.9
40°	2115.3	2132.5
42.5°	2088.3	2100.6
45°	2046.4	2061.2
47.5°	1992.4	2002.1
50°	1923.5	1933.3
52.5°	1837.3	1839.8
55°	1734.0	1743.9
57.5°	1623.4	1625.8
60°	1500.4	1507.8
62.5°	1370.1	1370.1
65°	1232.3	1237.2
67.5°	1089.6	1101.9
70°	944.5	947.0
72.5°	801.8	801.8
75°	654.3	656.7
77.5°	514.1	514.1
80°	381.2	383.7
82.5°	263.2	268.1
85°	164.8	164.8
87.5°	76.3	68.9
90°	34.5	34.5
92.5°	138.0	110.6
95°	480.9	398.0
97.5°	1152.4	994.5
100°	1660.5	1472.3
102.5°	2160.1	1999.0
105°	2797.2	2710.6
107.5°	3214.6	3235.5
110°	3373.7	3464.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3387.9	3526.5
115°	3298.0	3490.2
117.5°	3107.6	3320.8
120°	2954.1	3161.2
122.5°	2804.6	3008.8
125°	2591.3	2779.5
127.5°	2399.5	2558.4
130°	2286.5	2433.2
132.5°	2183.9	2315.3
135°	2043.5	2156.7
137.5°	1930.8	2023.5
140°	1853.4	1940.0
142.5°	1789.4	1863.9
145°	1693.2	1749.6
147.5°	1619.5	1666.3
150°	1573.1	1611.0
152.5°	1533.3	1562.0
155°	1487.7	1506.7
157.5°	1451.8	1465.0
160°	1430.1	1437.8
162.5°	1416.0	1423.3
165°	1395.7	1403.3
167.5°	1381.1	1384.3
170°	1377.0	1377.0
172.5°	1366.3	1363.5
175°	1359.8	1359.8
177.5°	1354.0	1350.8
180°	1350.8	1350.8



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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	5.45	6.26	6.48	7.30	8.70	18.61	19.42	19.64	20.47	21.87
	3H	6.15	6.88	7.19	7.93	9.35	20.44	21.17	21.48	22.22	23.64
	4H	6.45	7.14	7.50	8.19	9.61	21.08	21.77	22.13	22.83	24.25
	6H	6.69	7.33	7.76	8.39	9.83	21.51	22.14	22.57	23.20	24.64
	8H	6.76	7.37	7.83	8.44	9.87	21.62	22.23	22.69	23.30	24.74
	12H	6.78	7.35	7.85	8.42	9.88	21.69	22.26	22.76	23.33	24.79
4H	2H	12.65	13.34	13.71	14.39	15.82	18.88	19.57	19.94	20.63	22.05
	3H	14.21	14.79	15.28	15.87	17.31	20.92	21.50	21.98	22.58	24.02
	4H	14.31	14.84	15.38	15.91	17.37	21.68	22.21	22.75	23.28	24.74
	6H	14.31	14.77	15.39	15.86	17.32	22.21	22.67	23.29	23.76	25.22
	8H	14.29	14.72	15.37	15.80	17.27	22.37	22.80	23.45	23.88	25.35
	12H	14.24	14.63	15.34	15.73	17.21	22.46	22.84	23.56	23.94	25.42
8H	4H	15.74	16.17	16.82	17.26	18.73	21.74	22.16	22.82	23.25	24.72
	6H	15.98	16.34	17.09	17.46	18.93	22.36	22.71	23.46	23.84	25.31
	8H	16.00	16.31	17.11	17.42	18.91	22.58	22.89	23.69	23.99	25.48
	12H	15.97	16.24	17.08	17.34	18.87	22.71	22.99	23.83	24.09	25.62
12H	4H	15.88	16.27	16.98	17.37	18.84	21.69	22.07	22.79	23.17	24.65
	6H	16.24	16.55	17.35	17.66	19.15	22.34	22.65	23.45	23.76	25.25
	8H	16.31	16.58	17.42	17.68	19.21	22.57	22.84	23.68	23.94	25.47