

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: P937549

Luminaire Tested: SQ4-FB-100U-075D-930-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

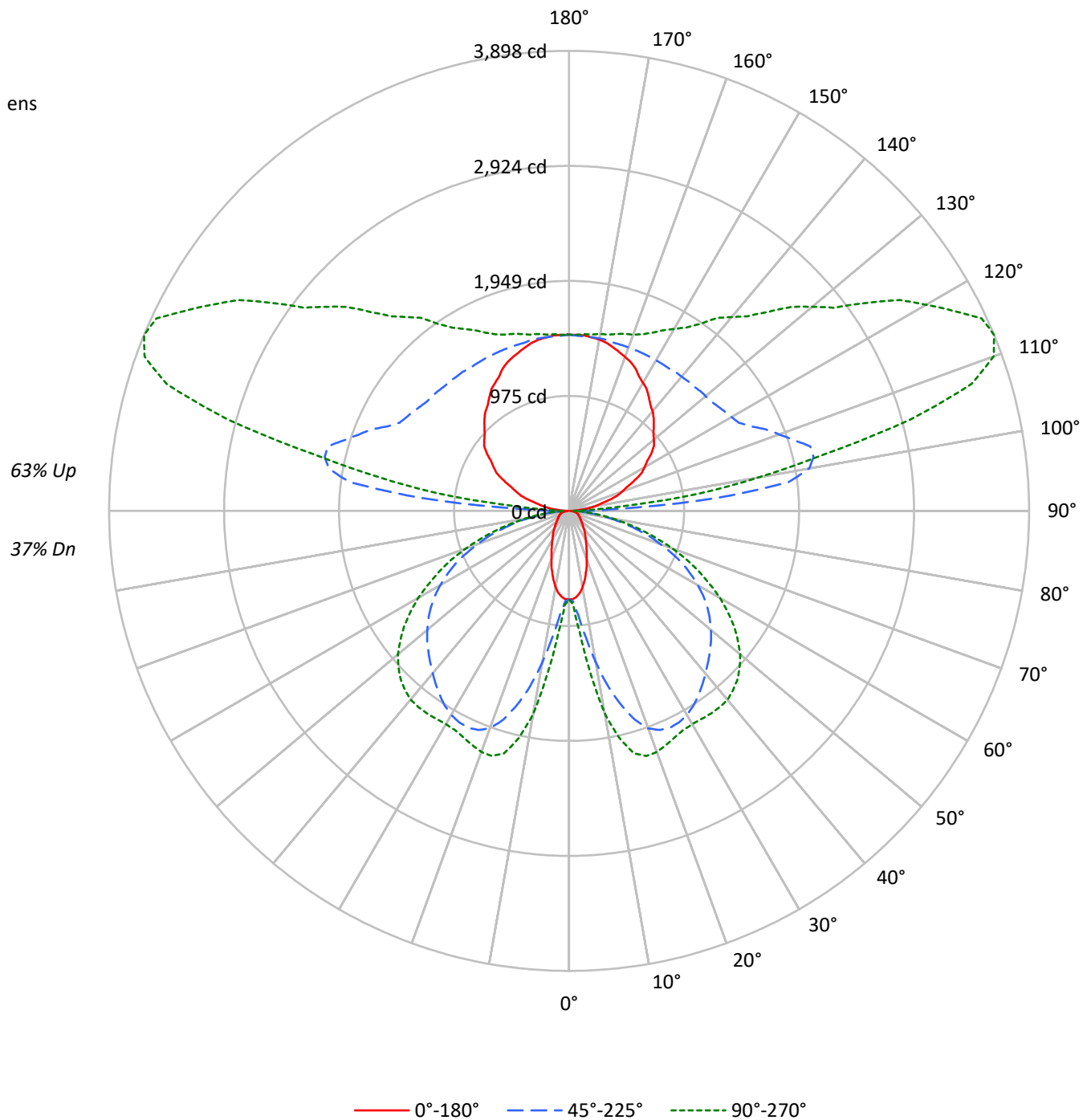
Test Method: LM-79-2019  
Report Number: P937549  
REPORT IS A COMBINATION OF REPORTS P933558 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-930-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15480.2 lumens  
Efficiency: N/A  
Efficacy: 104.9 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 147.6  
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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37				37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31				31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25				25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21				21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17				17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10				10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8				8

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

	0°	45°	90°
0°	2317	2317	2317
5°	2265	2679	3115
10°	2055	3906	5164
15°	1747	5105	6236
20°	1423	5917	6355
25°	1187	6193	6226
30°	1002	6234	6214
35°	886	6132	6375
40°	773	5999	6541
45°	700	5903	6566
50°	643	5816	6458
55°	616	5688	6172
60°	632	5441	5720
65°	658	5064	5099
70°	703	4419	4307
75°	782	3606	3361
80°	861	2504	2265
85°	781	1330	1159

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6566 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.9	0.6
10°-20°	429.5	2.8
20°-30°	751.3	4.9
30°-40°	967.2	6.2
40°-50°	1080.3	7.0
50°-60°	1034.7	6.7
60°-70°	820.0	5.3
70°-80°	482.2	3.1
80°-90°	139.7	0.9
90°-100°	727.8	4.7
100°-110°	1913.3	12.4
110°-120°	1983.9	12.8
120°-130°	1591.3	10.3
130°-140°	1248.6	8.1
140°-150°	958.4	6.2
150°-160°	690.2	4.5
160°-170°	422.3	2.7
170°-180°	142.7	0.9
0°-30°	1277.8	8.3
0°-40°	2244.9	14.5
0°-60°	4359.9	28.2
0°-90°	5801.7	37.5
90°-120°	4625.0	29.9
90°-150°	8423.3	54.4
90°-180°	9679.0	62.5
0°-180°	15480.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	749	749	749	749	749	
5°	730	783	882	997	1034	67
15°	547	1010	1701	2062	2127	152
25°	349	1144	2026	2115	2118	161
35°	236	1094	1908	2016	2096	147
45°	161	872	1686	1932	2019	125
55°	116	554	1431	1662	1708	105
65°	92	294	1062	1195	1212	91
75°	68	181	583	641	643	71
85°	24	55	144	159	161	26
90°	10	28	76	38	38	10
95°	96	377	1254	646	440	107
105°	345	522	2115	3211	2996	365
115°	612	744	1694	3380	3858	605
125°	852	955	1541	2604	3072	756
135°	1015	1117	1493	2102	2384	785
145°	1177	1252	1474	1794	1934	738
155°	1331	1368	1474	1618	1665	611
165°	1436	1455	1474	1532	1551	405
175°	1493	1493	1484	1503	1503	142
180°	1493	1493	1493	1493	1493	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	749.2	749.2	749.2	749.2	749.2	749.2	749.2	749.2	749.2	749.2	749.2
2.5°	749.2	749.2	754.0	756.4	761.2	763.7	768.5	773.3	787.7	790.2	795.0
5°	729.9	739.6	770.9	782.9	816.7	862.4	881.7	913.1	978.1	997.4	1009.5
7.5°	701.0	722.7	799.8	819.1	903.4	1023.9	1074.5	1141.9	1245.5	1296.1	1337.1
10°	655.2	701.0	838.3	884.1	1021.5	1204.6	1298.5	1392.5	1549.1	1618.9	1645.4
12.5°	604.7	679.3	879.3	942.0	1139.5	1406.9	1520.2	1623.7	1802.0	1896.0	1910.4
15°	546.8	648.0	917.9	1009.5	1264.8	1575.6	1700.8	1828.5	1994.7	2062.2	2079.0
17.5°	496.3	623.9	954.0	1050.4	1361.2	1727.3	1855.0	1961.0	2095.9	2141.7	2153.7
20°	433.6	585.4	978.1	1103.4	1462.3	1838.1	1961.0	2042.9	2134.5	2163.4	2168.2
22.5°	387.8	544.4	992.6	1122.7	1529.8	1905.6	2009.2	2074.2	2136.9	2146.5	2148.9
25°	349.3	498.7	990.2	1144.4	1587.6	1946.6	2026.0	2074.2	2110.4	2115.2	2115.2
27.5°	313.2	448.1	980.5	1149.2	1631.0	1956.2	2018.8	2052.5	2069.4	2079.0	2079.0
30°	281.9	399.9	956.5	1139.5	1650.2	1946.6	1997.1	2014.0	2030.9	2045.3	2052.5
32.5°	257.8	354.1	920.3	1120.3	1652.7	1922.5	1958.6	1968.2	1992.3	2026.0	2038.1
35°	236.1	308.4	879.3	1093.8	1638.2	1883.9	1908.0	1917.6	1965.8	2016.4	2033.3
37.5°	214.4	274.6	826.3	1048.0	1616.5	1838.1	1855.0	1871.9	1946.6	2006.8	2026.0
40°	192.7	245.7	763.7	997.4	1582.8	1782.7	1797.2	1823.7	1922.5	1992.3	2011.6
42.5°	175.9	221.6	696.2	944.4	1539.4	1720.1	1741.8	1780.3	1893.6	1968.2	1989.9
45°	161.4	197.5	623.9	872.1	1484.0	1655.1	1686.4	1739.4	1859.8	1932.1	1951.4
47.5°	146.9	180.7	549.3	797.4	1423.8	1590.0	1631.0	1691.2	1814.1	1883.9	1900.8
50°	134.9	163.8	474.6	717.9	1358.8	1520.2	1568.3	1631.0	1756.2	1821.3	1843.0
52.5°	125.3	149.4	404.7	638.4	1284.1	1447.9	1503.3	1568.3	1686.4	1749.0	1763.5
55°	115.6	137.3	344.5	554.1	1207.0	1370.8	1431.0	1493.7	1609.3	1662.3	1671.9
57.5°	110.8	127.7	293.9	474.6	1125.1	1284.1	1351.5	1409.3	1517.8	1558.7	1568.3
60°	103.6	120.4	255.4	407.1	1036.0	1202.2	1260.0	1317.8	1409.3	1443.1	1450.3
62.5°	96.4	115.6	226.4	342.1	944.4	1105.8	1163.6	1216.6	1293.7	1317.8	1327.4
65°	91.5	110.8	204.8	293.9	850.4	1004.6	1062.4	1108.2	1170.9	1194.9	1199.8
67.5°	86.7	106.0	187.9	252.9	756.4	903.4	946.8	990.2	1038.4	1062.4	1064.9
70°	79.5	101.2	173.4	224.0	660.1	787.7	823.9	869.6	908.2	920.3	927.5
72.5°	74.7	94.0	163.8	202.4	561.3	676.9	710.7	737.2	770.9	782.9	782.9
75°	67.5	84.3	154.2	180.7	460.1	554.1	583.0	609.5	636.0	640.8	633.6
77.5°	60.2	74.7	132.5	151.8	358.9	438.4	462.5	477.0	498.7	503.5	505.9
80°	50.6	65.0	103.6	118.0	260.2	322.8	339.7	351.7	371.0	371.0	375.8
82.5°	38.5	50.6	74.7	84.3	175.9	221.6	236.1	243.3	255.4	255.4	255.4
85°	24.1	31.3	48.2	55.4	106.0	134.9	144.5	146.9	156.6	159.0	159.0
87.5°	12.0	16.9	31.3	33.7	55.4	69.9	69.9	74.7	74.7	72.3	69.9
90°	10.0	18.1	26.0	28.0	44.1	65.4	76.1	67.7	50.7	38.1	38.1
92.5°	40.1	108.2	176.3	193.4	271.9	376.5	428.9	375.9	269.9	190.4	182.8
95°	96.2	220.9	345.6	376.8	669.0	1058.7	1253.5	1118.6	848.7	646.3	623.3
97.5°	166.3	276.3	386.3	413.9	901.1	1550.8	1875.7	1790.4	1619.9	1492.0	1448.4
100°	220.4	320.2	419.9	444.9	985.6	1706.6	2067.2	2073.4	2085.9	2095.2	2043.2
102.5°	266.5	359.6	452.7	475.9	1024.4	1755.7	2121.3	2229.9	2447.2	2610.2	2565.7
105°	344.7	423.5	502.4	522.0	1053.1	1761.2	2115.3	2358.9	2846.1	3211.4	3187.5
107.5°	424.9	498.3	571.8	590.2	1058.4	1682.8	1995.0	2334.8	3014.4	3524.0	3529.8
110°	479.0	545.3	611.6	628.3	1050.4	1613.3	1894.8	2274.7	3034.4	3604.2	3629.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	532.1	595.3	658.5	674.4	1050.8	1552.7	1803.6	2192.4	2970.0	3553.1	3591.4
115°	612.2	670.6	728.9	743.5	1060.4	1483.1	1694.4	2068.9	2818.0	3379.7	3432.8
117.5°	691.4	744.4	797.4	810.6	1080.2	1439.5	1619.2	1957.2	2633.3	3140.3	3199.2
120°	737.5	787.3	837.3	849.7	1096.3	1424.9	1589.2	1898.1	2515.7	2979.0	3036.2
122.5°	782.6	833.0	883.2	895.8	1119.3	1417.2	1566.2	1844.3	2400.5	2817.6	2874.1
125°	851.7	897.6	943.4	954.9	1150.3	1410.9	1541.1	1777.4	2249.8	2604.2	2656.2
127.5°	907.8	954.1	1000.5	1012.0	1181.4	1407.2	1520.1	1722.9	2128.6	2432.8	2476.7
130°	937.9	987.8	1037.6	1050.1	1204.1	1409.4	1512.0	1692.6	2053.8	2324.7	2365.2
132.5°	969.0	1018.8	1068.7	1081.2	1222.4	1410.8	1505.0	1666.6	1990.0	2232.5	2268.8
135°	1015.1	1060.4	1105.9	1117.2	1242.5	1409.5	1493.0	1628.4	1899.1	2102.2	2133.5
137.5°	1062.1	1107.1	1152.1	1163.3	1272.5	1418.2	1491.0	1605.4	1834.4	2006.1	2031.7
140°	1101.2	1142.7	1184.0	1194.4	1290.9	1419.6	1483.9	1582.8	1780.6	1928.9	1952.8
142.5°	1131.3	1169.6	1207.9	1217.4	1306.2	1424.7	1483.9	1570.8	1744.5	1874.8	1895.3
145°	1177.4	1210.8	1244.2	1252.5	1326.3	1424.8	1474.0	1545.0	1687.0	1793.6	1809.2
147.5°	1223.5	1256.0	1288.5	1296.6	1355.7	1434.6	1474.0	1529.9	1641.7	1725.5	1738.4
150°	1253.5	1282.9	1312.3	1319.7	1371.1	1439.7	1474.0	1521.2	1615.6	1686.4	1696.8
152.5°	1284.6	1306.8	1329.1	1334.7	1381.1	1443.0	1474.0	1514.3	1594.8	1655.3	1663.2
155°	1330.7	1347.1	1363.7	1367.7	1403.2	1450.4	1474.0	1506.0	1570.1	1618.2	1623.4
157.5°	1364.7	1380.8	1396.8	1400.8	1425.2	1457.8	1474.0	1498.9	1548.7	1586.2	1589.9
160°	1387.7	1400.3	1412.7	1415.8	1435.2	1461.1	1474.0	1495.3	1538.1	1570.1	1572.2
162.5°	1410.8	1420.1	1429.5	1431.8	1445.9	1464.6	1474.0	1492.0	1528.0	1555.1	1557.1
165°	1435.8	1444.3	1452.8	1454.9	1461.2	1469.7	1474.0	1486.9	1512.7	1532.0	1534.1
167.5°	1458.9	1462.9	1466.9	1468.0	1473.3	1480.4	1483.9	1492.5	1509.4	1522.1	1523.0
170°	1474.0	1478.0	1482.0	1483.0	1483.3	1483.7	1483.9	1492.5	1509.4	1522.1	1522.1
172.5°	1481.9	1482.8	1483.7	1483.9	1483.9	1483.9	1483.9	1490.6	1504.0	1514.1	1513.3
175°	1493.0	1493.0	1493.0	1493.0	1490.0	1486.0	1483.9	1488.2	1496.6	1503.0	1503.0
177.5°	1493.0	1493.0	1493.0	1493.0	1490.7	1487.6	1486.0	1489.3	1496.0	1501.0	1500.1
180°	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	749.2	749.2
2.5°	799.8	795.0
5°	1028.7	1033.5
7.5°	1385.3	1382.8
10°	1722.5	1744.2
12.5°	1968.2	1973.1
15°	2117.6	2127.2
17.5°	2175.4	2177.8
20°	2177.8	2173.0
22.5°	2151.3	2146.5
25°	2120.0	2117.6
27.5°	2091.1	2093.5
30°	2079.0	2086.3
32.5°	2079.0	2091.1
35°	2083.9	2095.9
37.5°	2081.5	2095.9
40°	2071.8	2088.7
42.5°	2045.3	2057.4
45°	2004.4	2018.8
47.5°	1951.4	1961.0
50°	1883.9	1893.6
52.5°	1799.6	1802.0
55°	1698.4	1708.1
57.5°	1590.0	1592.4
60°	1469.6	1476.8
62.5°	1341.9	1341.9
65°	1207.0	1211.8
67.5°	1067.3	1079.3
70°	925.1	927.5
72.5°	785.3	785.3
75°	640.8	643.2
77.5°	503.5	503.5
80°	373.4	375.8
82.5°	257.8	262.6
85°	161.4	161.4
87.5°	74.7	67.5
90°	38.1	38.1
92.5°	152.5	122.2
95°	531.6	439.9
97.5°	1273.8	1099.2
100°	1835.3	1627.3
102.5°	2387.6	2209.5
105°	3091.7	2996.0
107.5°	3553.0	3576.2
110°	3728.9	3828.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3744.6	3897.8
115°	3645.3	3857.7
117.5°	3434.8	3670.4
120°	3265.1	3494.0
122.5°	3099.8	3325.6
125°	2864.1	3072.1
127.5°	2652.2	2827.7
130°	2527.3	2689.4
132.5°	2414.0	2559.2
135°	2258.6	2383.8
137.5°	2134.1	2236.5
140°	2048.6	2144.3
142.5°	1977.7	2060.1
145°	1871.6	1933.9
147.5°	1790.0	1841.7
150°	1738.7	1780.6
152.5°	1694.8	1726.4
155°	1644.4	1665.3
157.5°	1604.6	1619.2
160°	1580.7	1589.2
162.5°	1565.1	1573.2
165°	1542.6	1551.1
167.5°	1526.5	1530.0
170°	1522.1	1522.1
172.5°	1510.1	1507.0
175°	1503.0	1503.0
177.5°	1496.6	1493.0
180°	1493.0	1493.0



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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	2.66	3.45	3.71	4.51	5.94	15.85	16.64	16.91	17.70	19.14
	3H	3.36	4.07	4.42	5.14	6.59	17.69	18.40	18.75	19.47	20.92
	4H	3.66	4.33	4.73	5.40	6.86	18.34	19.01	19.41	20.08	21.54
	6H	3.90	4.52	4.98	5.59	7.07	18.77	19.39	19.85	20.46	21.93
	8H	3.97	4.56	5.05	5.65	7.11	18.89	19.48	19.98	20.57	22.04
	12H	3.98	4.54	5.07	5.63	7.12	18.96	19.52	20.05	20.60	22.09
4H	2H	9.88	10.55	10.96	11.62	13.08	16.12	16.79	17.20	17.86	19.32
	3H	11.44	12.00	12.52	13.09	14.57	18.16	18.72	19.25	19.82	21.30
	4H	11.53	12.04	12.62	13.13	14.63	18.93	19.44	20.02	20.53	22.03
	6H	11.53	11.98	12.63	13.09	14.58	19.47	19.91	20.57	21.02	22.51
	8H	11.51	11.92	12.61	13.02	14.53	19.63	20.04	20.73	21.15	22.65
	12H	11.46	11.84	12.58	12.95	14.46	19.72	20.10	20.84	21.21	22.73
8H	4H	12.97	13.38	14.07	14.49	15.99	18.98	19.40	20.08	20.50	22.01
	6H	13.21	13.55	14.33	14.69	16.20	19.61	19.96	20.74	21.10	22.60
	8H	13.22	13.52	14.35	14.65	16.17	19.83	20.13	20.96	21.26	22.78
	12H	13.19	13.45	14.32	14.58	16.13	19.98	20.24	21.11	21.37	22.92
12H	4H	13.11	13.48	14.23	14.60	16.11	18.93	19.31	20.05	20.42	21.93
	6H	13.47	13.77	14.60	14.89	16.42	19.60	19.90	20.72	21.02	22.54
	8H	13.53	13.80	14.67	14.92	16.48	19.82	20.09	20.96	21.21	22.77