

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: P937920

Luminaire Tested: SQ4-FB-125U-075D-840-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937920  
REPORT IS A COMBINATION OF REPORTS P933614 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-075D-840-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

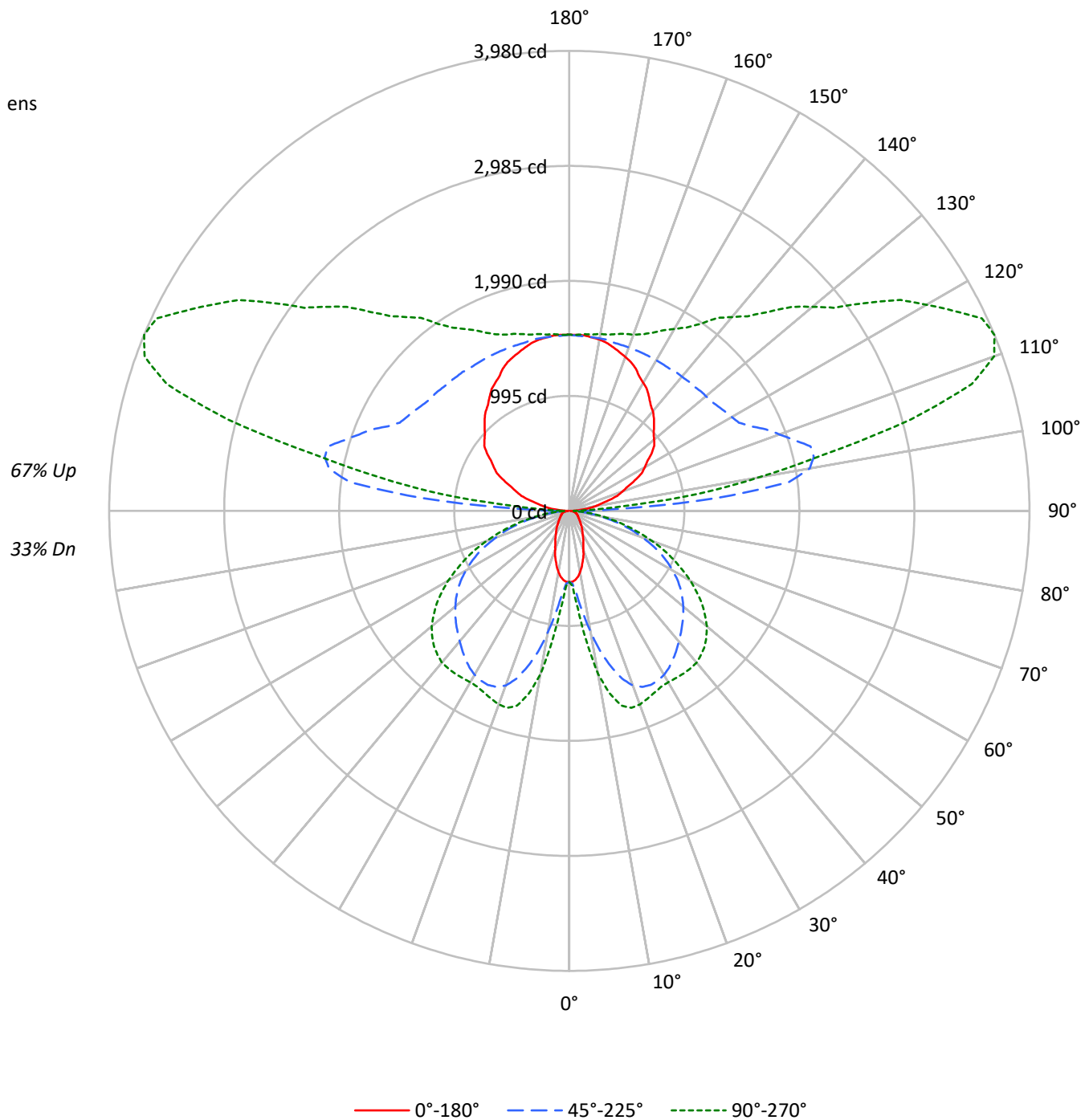
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14642.2 lumens  
Efficiency: N/A  
Efficacy: 131.7 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	50	30	10	0
RCR																					
0	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40	40	40	40	33
1	94	89	85	82	84	80	77	74	64	62	60	49	47	46	35	34	33	33	33	33	27
2	85	77	71	66	76	70	65	60	55	52	49	42	40	38	30	29	27	27	27	27	22
3	77	68	60	54	69	61	55	50	49	44	40	37	34	31	26	24	23	23	23	23	18
4	70	59	52	46	63	54	47	42	43	38	34	33	29	26	23	21	19	19	19	19	15
5	64	53	45	39	57	48	41	35	38	33	29	29	25	23	21	18	16	16	16	16	13
6	59	47	39	33	53	42	35	30	34	29	25	26	22	19	19	16	14	14	14	14	11
7	54	42	34	29	49	38	31	26	31	25	22	23	20	17	17	14	12	12	12	12	10
8	50	38	30	25	45	34	28	23	28	23	19	21	18	15	15	13	11	11	11	11	8
9	47	34	27	22	42	31	25	20	25	20	17	19	16	13	14	12	10	10	10	10	7
10	43	31	24	19	39	28	22	18	23	18	15	18	14	12	13	10	9	9	9	9	7

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

	0°	45°	90°
0°	2851	2851	2851
5°	2785	3295	3832
10°	2527	4804	6354
15°	2148	6277	7672
20°	1748	7273	7819
25°	1458	7611	7660
30°	1230	7659	7646
35°	1087	7532	7844
40°	948	7367	8048
45°	858	7246	8080
50°	787	7137	7946
55°	753	6977	7594
60°	772	6670	7038
65°	803	6205	6273
70°	855	5411	5300
75°	947	4412	4136
80°	1035	3060	2787
85°	922	1624	1426

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8080 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.5	0.5
10°-20°	352.3	2.4
20°-30°	616.3	4.2
30°-40°	793.3	5.4
40°-50°	886.1	6.1
50°-60°	848.7	5.8
60°-70°	672.6	4.6
70°-80°	395.5	2.7
80°-90°	115.7	0.8
90°-100°	743.1	5.1
100°-110°	1953.6	13.3
110°-120°	2025.6	13.8
120°-130°	1624.8	11.1
130°-140°	1274.9	8.7
140°-150°	978.5	6.7
150°-160°	704.7	4.8
160°-170°	431.2	2.9
170°-180°	145.7	1.0
0°-30°	1048.1	7.2
0°-40°	1841.5	12.6
0°-60°	3576.3	24.4
0°-90°	4760.1	32.5
90°-120°	4722.3	32.3
90°-150°	8600.5	58.7
90°-180°	9882.0	67.5
0°-180°	14642.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	599	642	723	818	848	55
15°	449	828	1395	1692	1745	125
25°	286	939	1662	1735	1737	132
35°	194	897	1565	1654	1719	121
45°	132	715	1383	1585	1656	102
55°	95	454	1174	1364	1401	86
65°	75	241	871	980	994	74
75°	55	148	478	526	528	58
85°	20	45	119	130	132	21
90°	10	29	78	39	39	10
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°	614.5	614.5	614.5	614.5	614.5	614.5	614.5	614.5	614.5	614.5	614.5
2.5°	614.5	614.5	618.5	620.5	624.4	626.4	630.3	634.3	646.2	648.1	652.1
5°	598.7	606.6	632.3	642.2	669.9	707.4	723.2	748.9	802.3	818.1	827.9
7.5°	575.0	592.8	656.0	671.8	741.0	839.8	881.3	936.6	1021.6	1063.1	1096.7
10°	537.5	575.0	687.6	725.2	837.8	988.0	1065.1	1142.2	1270.7	1328.0	1349.7
12.5°	496.0	557.2	721.2	772.6	934.6	1154.1	1247.0	1331.9	1478.1	1555.2	1567.1
15°	448.6	531.5	752.9	827.9	1037.4	1292.4	1395.2	1499.9	1636.2	1691.6	1705.4
17.5°	407.1	511.8	782.5	861.5	1116.4	1416.9	1521.6	1608.6	1719.2	1756.8	1766.6
20°	355.7	480.2	802.3	905.0	1199.5	1507.8	1608.6	1675.7	1750.8	1774.5	1778.5
22.5°	318.1	446.6	814.1	920.8	1254.9	1563.1	1648.1	1701.4	1752.8	1760.7	1762.7
25°	286.5	409.0	812.1	938.6	1302.3	1596.7	1661.9	1701.4	1731.1	1735.0	1735.0
27.5°	256.9	367.5	804.2	942.6	1337.9	1604.6	1656.0	1683.7	1697.5	1705.4	1705.4
30°	231.2	328.0	784.5	934.6	1353.7	1596.7	1638.2	1652.0	1665.9	1677.7	1683.7
32.5°	211.4	290.5	754.8	918.8	1355.6	1576.9	1606.6	1614.5	1634.3	1661.9	1671.8
35°	193.6	252.9	721.2	897.1	1343.8	1545.3	1565.1	1573.0	1612.5	1654.0	1667.8
37.5°	175.9	225.3	677.8	859.6	1326.0	1507.8	1521.6	1535.5	1596.7	1646.1	1661.9
40°	158.1	201.6	626.4	818.1	1298.3	1462.3	1474.2	1495.9	1576.9	1634.3	1650.1
42.5°	144.2	181.8	571.1	774.6	1262.8	1411.0	1428.7	1460.4	1553.2	1614.5	1632.3
45°	132.4	162.0	511.8	715.3	1217.3	1357.6	1383.3	1426.8	1525.6	1584.9	1600.7
47.5°	120.5	148.2	450.5	654.1	1167.9	1304.3	1337.9	1387.3	1488.0	1545.3	1559.2
50°	110.7	134.4	389.3	588.8	1114.5	1247.0	1286.5	1337.9	1440.6	1494.0	1511.7
52.5°	102.8	122.5	332.0	523.6	1053.2	1187.7	1233.1	1286.5	1383.3	1434.7	1446.5
55°	94.8	112.6	282.6	454.5	990.0	1124.4	1173.8	1225.2	1320.1	1363.5	1371.4
57.5°	90.9	104.7	241.1	389.3	922.8	1053.2	1108.5	1156.1	1245.0	1278.6	1286.5
60°	85.0	98.8	209.5	333.9	849.7	986.0	1033.4	1080.9	1156.1	1183.7	1189.7
62.5°	79.0	94.8	185.7	280.6	774.6	907.0	954.4	997.9	1061.1	1080.9	1088.8
65°	75.1	90.9	168.0	241.1	697.5	824.0	871.4	909.0	960.3	980.1	984.0
67.5°	71.1	86.9	154.1	207.5	620.5	741.0	776.6	812.1	851.7	871.4	873.4
70°	65.2	83.0	142.3	183.8	541.4	646.2	675.8	713.3	745.0	754.8	760.8
72.5°	61.3	77.1	134.4	166.0	460.4	555.3	582.9	604.7	632.3	642.2	642.2
75°	55.3	69.2	126.5	148.2	377.4	454.5	478.2	499.9	521.7	525.6	519.7
77.5°	49.4	61.3	108.7	124.5	294.4	359.6	379.4	391.2	409.0	413.0	415.0
80°	41.5	53.4	85.0	96.8	213.4	264.8	278.6	288.5	304.3	304.3	308.3
82.5°	31.6	41.5	61.3	69.2	144.2	181.8	193.6	199.6	209.5	209.5	209.5
85°	19.8	25.7	39.5	45.4	86.9	110.7	118.6	120.5	128.4	130.4	130.4
87.5°	9.9	13.8	25.7	27.7	45.4	57.3	57.3	61.3	61.3	59.3	57.3
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°	614.5	614.5
2.5°	656.0	652.1
5°	843.8	847.7
7.5°	1136.3	1134.3
10°	1412.9	1430.7
12.5°	1614.5	1618.4
15°	1737.0	1744.9
17.5°	1784.4	1786.4
20°	1786.4	1782.5
22.5°	1764.7	1760.7
25°	1739.0	1737.0
27.5°	1715.3	1717.2
30°	1705.4	1711.3
32.5°	1705.4	1715.3
35°	1709.3	1719.2
37.5°	1707.4	1719.2
40°	1699.5	1713.3
42.5°	1677.7	1687.6
45°	1644.1	1656.0
47.5°	1600.7	1608.6
50°	1545.3	1553.2
52.5°	1476.2	1478.1
55°	1393.2	1401.1
57.5°	1304.3	1306.2
60°	1205.5	1211.4
62.5°	1100.6	1100.6
65°	990.0	993.9
67.5°	875.4	885.2
70°	758.8	760.8
72.5°	644.2	644.2
75°	525.6	527.6
77.5°	413.0	413.0
80°	306.3	308.3
82.5°	211.4	215.4
85°	132.4	132.4
87.5°	61.3	55.3
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	2.78	3.53	3.87	4.62	6.12	15.96	16.71	17.05	17.80	19.30
	3H	3.48	4.15	4.58	5.25	6.76	17.79	18.46	18.89	19.56	21.08
	4H	3.77	4.41	4.88	5.51	7.03	18.43	19.07	19.54	20.17	21.69
	6H	4.02	4.60	5.13	5.71	7.24	18.86	19.44	19.97	20.55	22.08
	8H	4.08	4.64	5.20	5.76	7.29	18.97	19.53	20.09	20.65	22.18
	12H	4.10	4.62	5.22	5.74	7.29	19.04	19.57	20.16	20.68	22.23
4H	2H	9.98	10.62	11.10	11.72	13.24	16.22	16.86	17.34	17.96	19.48
	3H	11.54	12.07	12.66	13.20	14.73	18.26	18.79	19.38	19.92	21.45
	4H	11.63	12.12	12.76	13.24	14.79	19.02	19.51	20.14	20.62	22.18
	6H	11.63	12.05	12.77	13.19	14.74	19.55	19.97	20.68	21.11	22.66
	8H	11.61	12.00	12.74	13.13	14.69	19.71	20.10	20.84	21.23	22.80
	12H	11.56	11.91	12.71	13.06	14.63	19.80	20.15	20.95	21.30	22.86
8H	4H	13.06	13.46	14.20	14.59	16.15	19.07	19.46	20.20	20.59	22.15
	6H	13.30	13.63	14.46	14.80	16.36	19.69	20.02	20.85	21.19	22.75
	8H	13.32	13.60	14.48	14.75	16.33	19.91	20.19	21.07	21.35	22.93
	12H	13.28	13.53	14.44	14.68	16.29	20.05	20.30	21.21	21.45	23.06
12H	4H	13.20	13.56	14.35	14.70	16.27	19.02	19.37	20.16	20.51	22.08
	6H	13.56	13.84	14.72	15.00	16.57	19.67	19.96	20.83	21.11	22.69
	8H	13.62	13.87	14.79	15.02	16.64	19.90	20.15	21.06	21.30	22.91