

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: P938076

Luminaire Tested: SQ4-FB-125U-100D-940-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

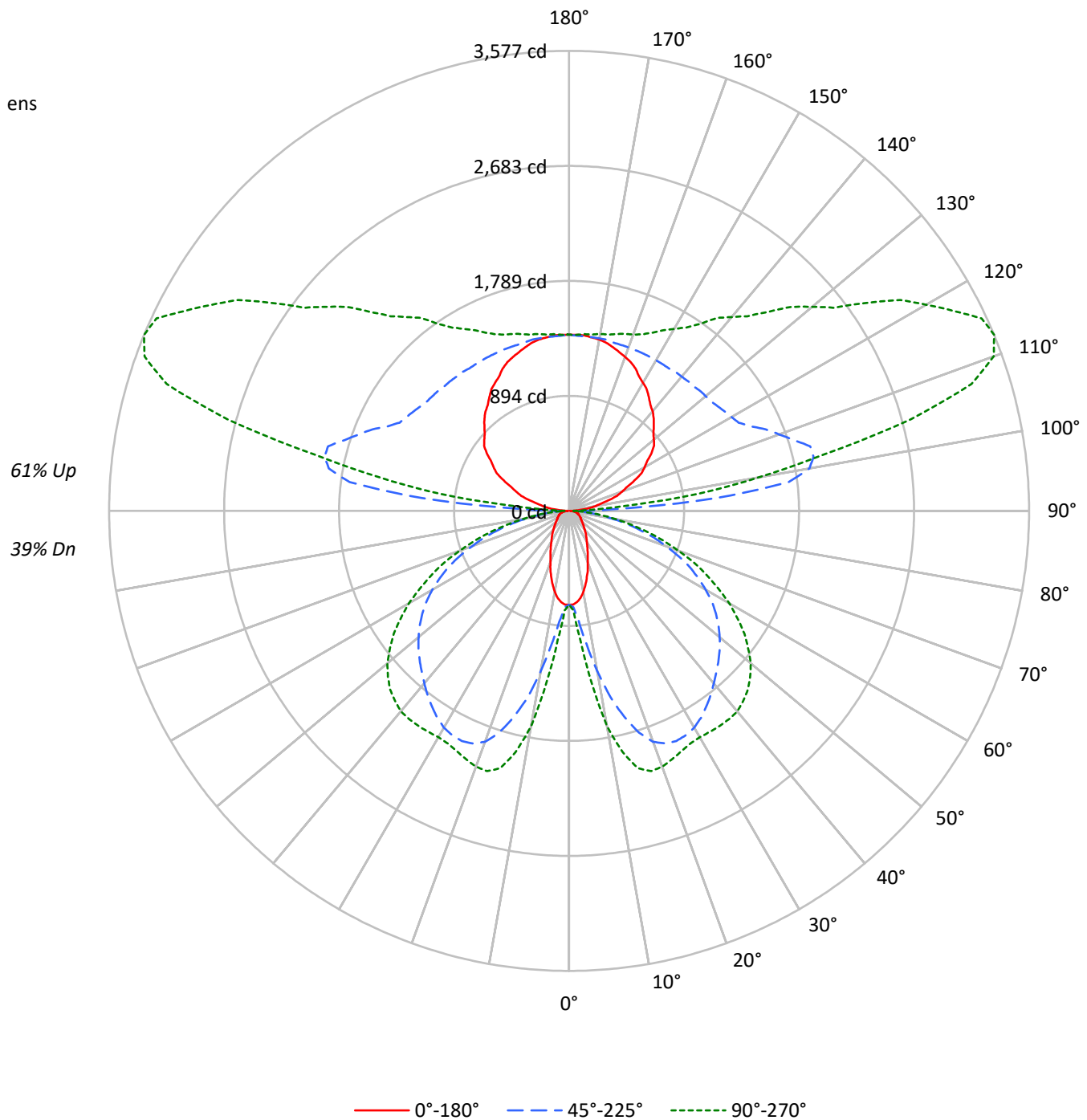
Test Method: LM-79-2019  
Report Number: P938076  
REPORT IS A COMBINATION OF REPORTS P933615 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-940-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14533.0 lumens  
Efficiency: N/A  
Efficacy: 112.8 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): 128.8  
Input Voltage (V): NR  
Input Current (Ain): 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	95	95	95	95	77	77	77	61	61	61	46	46	46	39			
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32			
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26			
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21			
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18			
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15			
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11			
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10			
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9			
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8			

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

	0°	45°	90°
0°	3386	3386	3386
5°	3308	3914	4551
10°	3001	5705	7546
15°	2550	7453	9111
20°	2076	8637	9286
25°	1732	9038	9097
30°	1461	9095	9080
35°	1291	8945	9314
40°	1125	8748	9557
45°	1019	8604	9595
50°	935	8475	9436
55°	895	8285	9018
60°	916	7922	8358
65°	954	7369	7450
70°	1015	6426	6294
75°	1125	5240	4912
80°	1230	3634	3310
85°	1090	1928	1695

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9595 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.4	0.6
10°-20°	418.4	2.9
20°-30°	731.9	5.0
30°-40°	942.1	6.5
40°-50°	1052.3	7.2
50°-60°	1007.9	6.9
60°-70°	798.7	5.5
70°-80°	469.7	3.2
80°-90°	135.7	0.9
90°-100°	667.9	4.6
100°-110°	1755.8	12.1
110°-120°	1820.6	12.5
120°-130°	1460.4	10.0
130°-140°	1145.9	7.9
140°-150°	879.5	6.1
150°-160°	633.4	4.4
160°-170°	387.5	2.7
170°-180°	130.9	0.9
0°-30°	1244.7	8.6
0°-40°	2186.8	15.0
0°-60°	4247.0	29.2
0°-90°	5651.1	38.9
90°-120°	4244.3	29.2
90°-150°	7730.1	53.2
90°-180°	8882.0	61.1
0°-180°	14533.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	711	763	859	972	1007	66
15°	533	983	1657	2009	2072	148
25°	340	1115	1974	2060	2063	157
35°	230	1065	1859	1964	2042	144
45°	157	850	1643	1882	1967	122
55°	113	540	1394	1619	1664	103
65°	89	286	1035	1164	1180	88
75°	66	176	568	624	627	69
85°	23	54	141	155	157	25
90°	9	26	70	35	35	9
95°	88	346	1150	593	404	98
105°	316	479	1941	2947	2749	335
115°	562	682	1555	3102	3540	555
125°	782	876	1414	2390	2819	694
135°	932	1025	1370	1929	2188	721
145°	1080	1149	1353	1646	1775	677
155°	1221	1255	1353	1485	1528	561
165°	1318	1335	1353	1406	1424	372
175°	1370	1370	1362	1379	1379	130
180°	1370	1370	1370	1370	1370	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8
2.5°	729.8	729.8	734.6	736.9	741.6	743.9	748.6	753.3	767.4	769.7	774.4
5°	711.0	720.4	751.0	762.7	795.6	840.1	858.9	889.4	952.7	971.6	983.3
7.5°	682.9	704.0	779.1	797.9	880.0	997.3	1046.6	1112.3	1213.3	1262.6	1302.4
10°	638.3	682.9	816.7	861.3	995.0	1173.3	1264.9	1356.4	1508.9	1577.0	1602.8
12.5°	589.0	661.7	856.6	917.6	1110.0	1370.5	1480.7	1581.7	1755.3	1846.9	1860.9
15°	532.7	631.3	894.1	983.3	1232.0	1534.7	1656.7	1781.2	1943.0	2008.7	2025.2
17.5°	483.4	607.8	929.3	1023.2	1325.9	1682.6	1807.0	1910.2	2041.6	2086.2	2098.0
20°	422.4	570.3	952.7	1074.7	1424.4	1790.6	1910.2	1990.0	2079.2	2107.3	2112.0
22.5°	377.8	530.3	966.9	1093.6	1490.2	1856.3	1957.2	2020.5	2081.6	2090.9	2093.3
25°	340.3	485.7	964.5	1114.7	1546.5	1896.1	1973.6	2020.5	2055.7	2060.4	2060.4
27.5°	305.0	436.5	955.1	1119.4	1588.7	1905.6	1966.6	1999.4	2015.8	2025.2	2025.2
30°	274.6	389.6	931.6	1110.0	1607.5	1896.1	1945.4	1961.9	1978.3	1992.3	1999.4
32.5°	251.1	345.0	896.4	1091.2	1609.9	1872.7	1907.9	1917.3	1940.7	1973.6	1985.3
35°	230.0	300.4	856.6	1065.4	1595.7	1835.1	1858.6	1868.0	1914.9	1964.2	1980.6
37.5°	208.9	267.6	804.9	1020.8	1574.6	1790.6	1807.0	1823.4	1896.1	1954.8	1973.6
40°	187.7	239.4	743.9	971.6	1541.7	1736.6	1750.6	1776.4	1872.7	1940.7	1959.5
42.5°	171.3	215.9	678.2	919.9	1499.6	1675.6	1696.7	1734.2	1844.5	1917.3	1938.4
45°	157.3	192.4	607.8	849.5	1445.6	1612.2	1642.7	1694.3	1811.6	1882.0	1900.9
47.5°	143.1	176.0	535.0	776.7	1386.9	1548.8	1588.7	1647.4	1767.0	1835.1	1851.6
50°	131.4	159.6	462.3	699.3	1323.6	1480.7	1527.7	1588.7	1710.7	1774.1	1795.2
52.5°	122.0	145.5	394.3	621.9	1250.7	1410.3	1464.3	1527.7	1642.7	1703.7	1717.7
55°	112.6	133.7	335.6	539.7	1175.7	1335.3	1393.9	1455.0	1567.6	1619.2	1628.6
57.5°	108.0	124.4	286.3	462.3	1095.9	1250.7	1316.5	1372.8	1478.4	1518.3	1527.7
60°	100.9	117.3	248.7	396.6	1009.1	1171.0	1227.3	1283.6	1372.8	1405.7	1412.7
62.5°	93.9	112.6	220.6	333.3	919.9	1077.1	1133.4	1185.1	1260.2	1283.6	1293.0
65°	89.2	108.0	199.4	286.3	828.4	978.6	1034.9	1079.5	1140.5	1164.0	1168.7
67.5°	84.4	103.3	183.0	246.4	736.9	880.0	922.3	964.5	1011.4	1034.9	1037.3
70°	77.4	98.6	169.0	218.3	643.0	767.4	802.6	847.2	884.7	896.4	903.5
72.5°	72.7	91.6	159.6	197.1	546.7	659.4	692.3	718.1	751.0	762.7	762.7
75°	65.7	82.1	150.2	176.0	448.3	539.7	567.9	593.7	619.6	624.3	617.2
77.5°	58.7	72.7	129.0	147.9	349.7	427.1	450.6	464.6	485.7	490.4	492.8
80°	49.3	63.4	100.9	115.0	253.4	314.4	330.9	342.6	361.4	361.4	366.1
82.5°	37.6	49.3	72.7	82.1	171.3	215.9	230.0	237.0	248.7	248.7	248.7
85°	23.4	30.5	47.0	54.0	103.3	131.4	140.8	143.1	152.6	154.9	154.9
87.5°	11.7	16.4	30.5	32.9	54.0	68.0	68.0	72.7	72.7	70.4	68.0
90°	9.2	16.6	23.9	25.8	40.5	60.1	69.9	62.1	46.5	34.9	34.9
92.5°	36.8	99.3	161.9	177.5	249.5	345.5	393.6	344.9	247.7	174.7	167.7
95°	88.3	202.7	317.2	345.8	614.0	971.6	1150.3	1026.5	778.9	593.1	572.0
97.5°	152.6	253.6	354.6	379.8	827.0	1423.3	1721.4	1643.2	1486.6	1369.2	1329.2
100°	202.3	293.8	385.4	408.3	904.5	1566.2	1897.0	1902.7	1914.2	1922.8	1875.1
102.5°	244.6	330.0	415.4	436.8	940.1	1611.2	1946.7	2046.4	2245.8	2395.4	2354.5
105°	316.3	388.7	461.0	479.1	966.4	1616.2	1941.2	2164.7	2611.8	2947.1	2925.2
107.5°	389.9	457.3	524.7	541.6	971.3	1544.3	1830.8	2142.7	2766.3	3234.0	3239.3
110°	439.6	500.5	561.4	576.6	964.0	1480.6	1738.9	2087.5	2784.7	3307.5	3330.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	488.3	546.3	604.4	618.8	964.3	1424.9	1655.1	2011.9	2725.4	3260.6	3295.8
115°	561.8	615.4	668.8	682.3	973.2	1361.0	1555.0	1898.6	2586.0	3101.6	3150.4
117.5°	634.5	683.1	731.7	743.9	991.3	1321.1	1486.0	1796.2	2416.5	2881.8	2935.9
120°	676.7	722.6	768.3	779.8	1005.9	1307.6	1458.4	1741.8	2308.6	2733.8	2786.3
122.5°	718.1	764.3	810.5	822.0	1027.1	1300.5	1437.2	1692.4	2203.0	2585.8	2637.5
125°	781.6	823.7	865.8	876.3	1055.6	1294.7	1414.2	1631.1	2064.7	2389.9	2437.6
127.5°	833.1	875.7	918.1	928.8	1084.2	1291.3	1395.0	1581.1	1953.4	2232.6	2272.8
130°	860.6	906.5	952.2	963.7	1104.9	1293.4	1387.6	1553.3	1884.8	2133.3	2170.5
132.5°	889.2	935.0	980.7	992.2	1121.8	1294.7	1381.1	1529.5	1826.2	2048.7	2082.0
135°	931.5	973.2	1014.9	1025.3	1140.2	1293.5	1370.1	1494.3	1742.8	1929.2	1957.9
137.5°	974.7	1016.0	1057.3	1067.6	1167.8	1301.5	1368.2	1473.3	1683.4	1840.9	1864.4
140°	1010.5	1048.6	1086.6	1096.1	1184.7	1302.8	1361.8	1452.6	1634.0	1770.1	1792.1
142.5°	1038.2	1073.3	1108.4	1117.2	1198.7	1307.5	1361.8	1441.5	1600.9	1720.4	1739.3
145°	1080.4	1111.1	1141.8	1149.4	1217.2	1307.5	1352.6	1417.8	1548.2	1646.0	1660.3
147.5°	1122.8	1152.6	1182.5	1189.9	1244.2	1316.5	1352.6	1403.9	1506.5	1583.5	1595.3
150°	1150.3	1177.3	1204.3	1211.1	1258.2	1321.2	1352.6	1395.9	1482.6	1547.6	1557.2
152.5°	1178.8	1199.2	1219.7	1224.8	1267.4	1324.2	1352.6	1389.6	1463.6	1519.1	1526.4
155°	1221.2	1236.3	1251.4	1255.2	1287.7	1330.9	1352.6	1382.1	1441.0	1485.1	1489.9
157.5°	1252.4	1267.1	1281.8	1285.5	1307.8	1337.7	1352.6	1375.5	1421.2	1455.6	1459.0
160°	1273.6	1285.0	1296.5	1299.3	1317.1	1340.8	1352.6	1372.2	1411.5	1440.9	1442.8
162.5°	1294.7	1303.2	1311.8	1314.0	1326.8	1344.0	1352.6	1369.1	1402.2	1427.1	1429.0
165°	1317.7	1325.5	1333.2	1335.2	1341.0	1348.7	1352.6	1364.5	1388.2	1406.0	1407.9
167.5°	1338.8	1342.5	1346.2	1347.1	1352.0	1358.6	1361.8	1369.6	1385.1	1396.7	1397.5
170°	1352.6	1356.3	1360.1	1360.9	1361.2	1361.7	1361.8	1369.6	1385.1	1396.7	1396.7
172.5°	1360.0	1360.8	1361.7	1361.8	1361.8	1361.8	1361.8	1368.0	1380.2	1389.5	1388.7
175°	1370.1	1370.1	1370.1	1370.1	1367.3	1363.7	1361.8	1365.7	1373.5	1379.3	1379.3
177.5°	1370.1	1370.1	1370.1	1370.1	1368.0	1365.1	1363.7	1366.7	1372.8	1377.5	1376.7
180°	1370.1	1370.1	1370.1	1370.1	1370.1	1370.1	1370.1	1370.1	1370.1	1370.1	1370.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	729.8	729.8
2.5°	779.1	774.4
5°	1002.0	1006.7
7.5°	1349.3	1347.0
10°	1677.9	1699.0
12.5°	1917.3	1922.0
15°	2062.7	2072.1
17.5°	2119.0	2121.4
20°	2121.4	2116.7
22.5°	2095.6	2090.9
25°	2065.1	2062.7
27.5°	2036.9	2039.3
30°	2025.2	2032.3
32.5°	2025.2	2036.9
35°	2029.9	2041.6
37.5°	2027.6	2041.6
40°	2018.2	2034.6
42.5°	1992.3	2004.0
45°	1952.4	1966.6
47.5°	1900.9	1910.2
50°	1835.1	1844.5
52.5°	1753.0	1755.3
55°	1654.4	1663.8
57.5°	1548.8	1551.2
60°	1431.5	1438.6
62.5°	1307.1	1307.1
65°	1175.7	1180.4
67.5°	1039.6	1051.3
70°	901.1	903.5
72.5°	765.0	765.0
75°	624.3	626.6
77.5°	490.4	490.4
80°	363.7	366.1
82.5°	251.1	255.8
85°	157.3	157.3
87.5°	72.7	65.7
90°	34.9	34.9
92.5°	139.9	112.2
95°	487.9	403.7
97.5°	1169.0	1008.8
100°	1684.2	1493.3
102.5°	2191.1	2027.6
105°	2837.2	2749.4
107.5°	3260.6	3281.8
110°	3422.0	3513.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3436.4	3577.0
115°	3345.3	3540.2
117.5°	3152.0	3368.3
120°	2996.4	3206.4
122.5°	2844.8	3052.0
125°	2628.5	2819.3
127.5°	2433.9	2594.9
130°	2319.3	2468.0
132.5°	2215.3	2348.5
135°	2072.8	2187.6
137.5°	1958.4	2052.4
140°	1880.0	1967.8
142.5°	1814.9	1890.6
145°	1717.5	1774.7
147.5°	1642.7	1690.1
150°	1595.6	1634.0
152.5°	1555.3	1584.4
155°	1509.1	1528.2
157.5°	1472.5	1486.0
160°	1450.5	1458.4
162.5°	1436.3	1443.7
165°	1415.6	1423.5
167.5°	1400.8	1404.1
170°	1396.7	1396.7
172.5°	1385.8	1383.0
175°	1379.3	1379.3
177.5°	1373.4	1370.1
180°	1370.1	1370.1



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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	4.13	4.93	5.17	5.98	7.40	17.31	18.11	18.35	19.16	20.58
	3H	4.83	5.55	5.88	6.61	8.05	19.15	19.86	20.20	20.92	22.36
	4H	5.13	5.81	6.19	6.87	8.31	19.79	20.47	20.85	21.53	22.97
	6H	5.38	6.00	6.45	7.07	8.52	20.21	20.84	21.29	21.91	23.36
	8H	5.44	6.04	6.52	7.12	8.57	20.33	20.93	21.41	22.01	23.46
	12H	5.46	6.02	6.54	7.10	8.58	20.40	20.97	21.48	22.04	23.52
4H	2H	11.34	12.02	12.41	13.08	14.52	17.58	18.26	18.65	19.32	20.76
	3H	12.90	13.47	13.98	14.56	16.02	19.62	20.19	20.69	21.27	22.73
	4H	12.99	13.52	14.08	14.59	16.07	20.38	20.90	21.46	21.98	23.46
	6H	13.00	13.45	14.09	14.55	16.02	20.92	21.37	22.01	22.47	23.94
	8H	12.98	13.39	14.07	14.49	15.98	21.08	21.50	22.17	22.59	24.08
	12H	12.93	13.31	14.04	14.42	15.91	21.17	21.55	22.28	22.66	24.15
8H	4H	14.43	14.85	15.52	15.95	17.44	20.44	20.86	21.53	21.95	23.44
	6H	14.67	15.02	15.79	16.16	17.64	21.06	21.41	22.18	22.55	24.03
	8H	14.69	14.99	15.81	16.11	17.62	21.28	21.59	22.40	22.70	24.21
	12H	14.65	14.92	15.78	16.04	17.58	21.42	21.69	22.55	22.81	24.35
12H	4H	14.57	14.95	15.68	16.06	17.56	20.39	20.77	21.49	21.87	23.37
	6H	14.93	15.23	16.05	16.35	17.86	21.04	21.35	22.16	22.47	23.97
	8H	15.00	15.26	16.12	16.38	17.92	21.27	21.54	22.40	22.65	24.20