

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: P937525

Luminaire Tested: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937525
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-92765-1D-UNV-STD-W-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

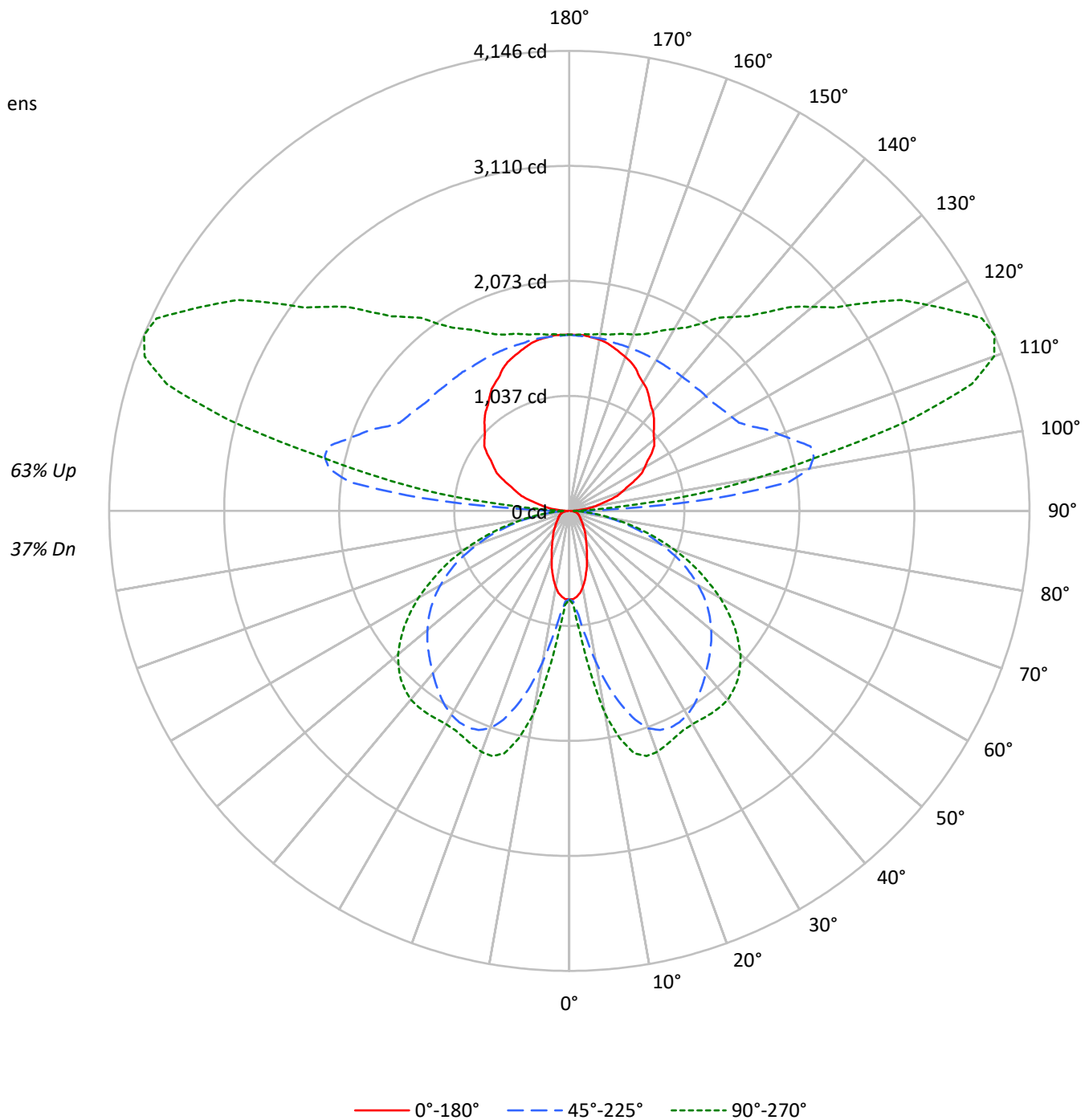
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16465.9 lumens
Efficiency: N/A
Efficacy: 111.6 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_{in}): 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	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°	2465	2465	2465
5°	2409	2850	3313
10°	2186	4155	5493
15°	1859	5430	6633
20°	1513	6294	6760
25°	1263	6588	6622
30°	1066	6631	6610
35°	943	6523	6781
40°	822	6381	6958
45°	745	6279	6985
50°	684	6186	6869
55°	655	6050	6565
60°	672	5787	6084
65°	700	5386	5423
70°	748	4700	4582
75°	831	3836	3575
80°	915	2663	2409
85°	830	1415	1233

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6985 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	0.6
10°-20°	456.9	2.8
20°-30°	799.2	4.9
30°-40°	1028.8	6.2
40°-50°	1149.1	7.0
50°-60°	1100.6	6.7
60°-70°	872.2	5.3
70°-80°	512.8	3.1
80°-90°	148.5	0.9
90°-100°	774.1	4.7
100°-110°	2035.1	12.4
110°-120°	2110.2	12.8
120°-130°	1692.7	10.3
130°-140°	1328.1	8.1
140°-150°	1019.4	6.2
150°-160°	734.1	4.5
160°-170°	449.2	2.7
170°-180°	151.8	0.9
0°-30°	1359.1	8.3
0°-40°	2387.9	14.5
0°-60°	4637.5	28.2
0°-90°	6171.1	37.5
90°-120°	4919.5	29.9
90°-150°	8959.7	54.4
90°-180°	10295.0	62.5
0°-180°	16465.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	797	797	797	797	797	
5°	776	833	938	1061	1099	72
15°	582	1074	1809	2194	2263	162
25°	372	1217	2155	2250	2252	171
35°	251	1163	2030	2145	2229	157
45°	172	928	1794	2055	2147	133
55°	123	589	1522	1768	1817	112
65°	97	313	1130	1271	1289	97
75°	72	192	620	682	684	75
85°	26	59	154	169	172	27
90°	11	30	81	40	40	11
95°	102	401	1333	687	468	114
105°	367	555	2250	3416	3187	389
115°	651	791	1802	3595	4103	643
125°	906	1016	1639	2770	3268	804
135°	1080	1188	1588	2236	2536	835
145°	1252	1332	1568	1908	2057	785
155°	1415	1455	1568	1721	1771	650
165°	1527	1548	1568	1630	1650	431
175°	1588	1588	1578	1599	1599	151
180°	1588	1588	1588	1588	1588	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	796.9	796.9	796.9	796.9	796.9	796.9	796.9	796.9	796.9	796.9	796.9
2.5°	796.9	796.9	802.0	804.6	809.7	812.3	817.4	822.5	837.9	840.5	845.6
5°	776.4	786.7	820.0	832.8	868.6	917.3	937.8	971.2	1040.4	1060.9	1073.7
7.5°	745.7	768.7	850.7	871.2	960.9	1089.1	1142.9	1214.7	1324.8	1378.6	1422.2
10°	697.0	745.7	891.7	940.4	1086.5	1281.3	1381.2	1481.1	1647.7	1722.0	1750.2
12.5°	643.2	722.6	935.3	1002.0	1212.1	1496.5	1616.9	1727.1	1916.7	2016.7	2032.1
15°	581.7	689.3	976.4	1073.7	1345.3	1675.9	1809.1	1944.9	2121.7	2193.5	2211.4
17.5°	527.9	663.7	1014.8	1117.3	1447.8	1837.3	1973.1	2085.9	2229.4	2278.0	2290.9
20°	461.2	622.7	1040.4	1173.7	1555.5	1955.2	2085.9	2173.0	2270.4	2301.1	2306.2
22.5°	412.5	579.1	1055.8	1194.2	1627.2	2026.9	2137.1	2206.3	2272.9	2283.2	2285.7
25°	371.5	530.4	1053.2	1217.2	1688.7	2070.5	2155.1	2206.3	2244.7	2249.9	2249.9
27.5°	333.1	476.6	1043.0	1222.3	1734.8	2080.7	2147.4	2183.2	2201.2	2211.4	2211.4
30°	299.8	425.4	1017.4	1212.1	1755.3	2070.5	2124.3	2142.2	2160.2	2175.5	2183.2
32.5°	274.2	376.7	978.9	1191.6	1757.9	2044.9	2083.3	2093.6	2119.2	2155.1	2167.9
35°	251.1	328.0	935.3	1163.4	1742.5	2003.9	2029.5	2039.7	2091.0	2144.8	2162.7
37.5°	228.1	292.1	878.9	1114.7	1719.4	1955.2	1973.1	1991.1	2070.5	2134.6	2155.1
40°	205.0	261.4	812.3	1060.9	1683.6	1896.2	1911.6	1939.8	2044.9	2119.2	2139.7
42.5°	187.1	235.7	740.5	1004.5	1637.4	1829.6	1852.7	1893.7	2014.1	2093.6	2116.6
45°	171.7	210.1	663.7	927.6	1578.5	1760.4	1793.8	1850.1	1978.2	2055.1	2075.6
47.5°	156.3	192.2	584.2	848.1	1514.5	1691.3	1734.8	1798.9	1929.6	2003.9	2021.8
50°	143.5	174.2	504.8	763.6	1445.3	1616.9	1668.2	1734.8	1868.1	1937.2	1960.3
52.5°	133.2	158.9	430.5	679.0	1365.8	1540.1	1599.0	1668.2	1793.8	1860.4	1875.8
55°	123.0	146.1	366.4	589.3	1283.8	1458.1	1522.1	1588.8	1711.8	1768.1	1778.4
57.5°	117.9	135.8	312.6	504.8	1196.7	1365.8	1437.6	1499.1	1614.4	1657.9	1668.2
60°	110.2	128.1	271.6	433.0	1101.9	1278.7	1340.2	1401.7	1499.1	1535.0	1542.6
62.5°	102.5	123.0	240.9	363.9	1004.5	1176.2	1237.7	1294.1	1376.1	1401.7	1412.0
65°	97.4	117.9	217.8	312.6	904.5	1068.6	1130.1	1178.8	1245.4	1271.0	1276.2
67.5°	92.2	112.7	199.9	269.1	804.6	960.9	1007.1	1053.2	1104.5	1130.1	1132.7
70°	84.6	107.6	184.5	238.3	702.1	837.9	876.3	925.0	966.0	978.9	986.6
72.5°	79.4	99.9	174.2	215.2	597.0	720.0	755.9	784.1	820.0	832.8	832.8
75°	71.7	89.7	164.0	192.2	489.4	589.3	620.1	648.3	676.5	681.6	673.9
77.5°	64.1	79.4	140.9	161.4	381.8	466.4	492.0	507.4	530.4	535.5	538.1
80°	53.8	69.2	110.2	125.6	276.7	343.4	361.3	374.1	394.6	394.6	399.7
82.5°	41.0	53.8	79.4	89.7	187.1	235.7	251.1	258.8	271.6	271.6	271.6
85°	25.6	33.3	51.2	58.9	112.7	143.5	153.7	156.3	166.6	169.1	169.1
87.5°	12.8	17.9	33.3	35.9	58.9	74.3	74.3	79.4	79.4	76.9	74.3
90°	10.7	19.2	27.7	29.8	46.9	69.6	81.0	72.0	54.0	40.5	40.5
92.5°	42.6	115.1	187.6	205.7	289.2	400.5	456.2	399.8	287.1	202.5	194.5
95°	102.3	235.0	367.6	400.8	711.6	1126.1	1333.3	1189.8	902.7	687.4	663.0
97.5°	176.9	293.9	410.9	440.2	958.5	1649.6	1995.2	1904.4	1723.0	1587.0	1540.6
100°	234.5	340.5	446.6	473.2	1048.4	1815.3	2198.8	2205.4	2218.7	2228.6	2173.3
102.5°	283.5	382.5	481.5	506.2	1089.6	1867.5	2256.3	2371.9	2603.0	2776.4	2729.0
105°	366.7	450.5	534.3	555.3	1120.2	1873.4	2249.9	2509.1	3027.3	3415.9	3390.5
107.5°	451.9	530.1	608.2	627.8	1125.8	1789.9	2122.0	2483.5	3206.3	3748.4	3754.6
110°	509.5	580.0	650.6	668.3	1117.3	1716.0	2015.4	2419.5	3227.6	3833.7	3860.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	565.9	633.3	700.5	717.3	1117.7	1651.5	1918.5	2332.0	3159.1	3779.3	3820.1
115°	651.2	713.3	775.3	790.8	1128.0	1577.5	1802.3	2200.7	2997.4	3594.9	3651.4
117.5°	735.4	791.8	848.1	862.2	1149.0	1531.2	1722.3	2081.9	2800.9	3340.2	3402.8
120°	784.4	837.5	890.6	903.8	1166.1	1515.7	1690.4	2018.9	2675.9	3168.6	3229.5
122.5°	832.4	886.0	939.5	952.9	1190.6	1507.5	1665.9	1961.7	2553.3	2997.0	3057.1
125°	906.0	954.7	1003.5	1015.7	1223.5	1500.7	1639.2	1890.5	2393.1	2770.0	2825.3
127.5°	965.6	1014.9	1064.2	1076.5	1256.6	1496.8	1616.9	1832.6	2264.1	2587.8	2634.4
130°	997.6	1050.7	1103.7	1116.9	1280.8	1499.2	1608.3	1800.4	2184.6	2472.7	2515.8
132.5°	1030.7	1083.7	1136.8	1150.0	1300.2	1500.6	1600.8	1772.7	2116.7	2374.6	2413.3
135°	1079.7	1128.0	1176.3	1188.3	1321.6	1499.3	1588.1	1732.1	2020.0	2236.0	2269.3
137.5°	1129.8	1177.6	1225.4	1237.4	1353.5	1508.5	1585.9	1707.7	1951.2	2133.8	2161.0
140°	1171.4	1215.4	1259.4	1270.4	1373.1	1510.0	1578.4	1683.6	1893.9	2051.7	2077.2
142.5°	1203.3	1244.0	1284.8	1294.9	1389.4	1515.4	1578.4	1670.8	1855.6	1994.1	2016.0
145°	1252.3	1287.9	1323.4	1332.3	1410.8	1515.5	1567.8	1643.3	1794.4	1907.8	1924.4
147.5°	1301.3	1335.9	1370.5	1379.2	1442.0	1525.9	1567.8	1627.3	1746.2	1835.4	1849.1
150°	1333.3	1364.6	1395.8	1403.7	1458.4	1531.4	1567.8	1618.1	1718.4	1793.8	1804.9
152.5°	1366.3	1390.0	1413.8	1419.6	1469.0	1534.9	1567.8	1610.7	1696.4	1760.7	1769.1
155°	1415.4	1432.9	1450.5	1454.8	1492.5	1542.7	1567.8	1601.9	1670.1	1721.2	1726.8
157.5°	1451.6	1468.7	1485.8	1490.0	1516.0	1550.6	1567.8	1594.3	1647.4	1687.2	1691.1
160°	1476.1	1489.4	1502.7	1506.0	1526.6	1554.1	1567.8	1590.6	1636.0	1670.1	1672.3
162.5°	1500.6	1510.5	1520.5	1523.0	1537.9	1557.8	1567.8	1587.0	1625.3	1654.1	1656.2
165°	1527.3	1536.2	1545.3	1547.5	1554.3	1563.3	1567.8	1581.6	1609.0	1629.6	1631.8
167.5°	1551.8	1556.1	1560.3	1561.4	1567.1	1574.7	1578.4	1587.5	1605.5	1619.0	1619.9
170°	1567.8	1572.1	1576.4	1577.4	1577.7	1578.2	1578.4	1587.5	1605.5	1619.0	1619.0
172.5°	1576.3	1577.2	1578.2	1578.4	1578.4	1578.4	1578.4	1585.5	1599.8	1610.5	1609.6
175°	1588.1	1588.1	1588.1	1588.1	1584.8	1580.6	1578.4	1583.0	1591.9	1598.7	1598.7
177.5°	1588.1	1588.1	1588.1	1588.1	1585.6	1582.3	1580.6	1584.2	1591.2	1596.5	1595.6
180°	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	796.9	796.9
2.5°	850.7	845.6
5°	1094.2	1099.3
7.5°	1473.5	1470.9
10°	1832.2	1855.3
12.5°	2093.6	2098.7
15°	2252.4	2262.7
17.5°	2313.9	2316.5
20°	2316.5	2311.4
22.5°	2288.3	2283.2
25°	2255.0	2252.4
27.5°	2224.2	2226.8
30°	2211.4	2219.1
32.5°	2211.4	2224.2
35°	2216.5	2229.4
37.5°	2214.0	2229.4
40°	2203.7	2221.7
42.5°	2175.5	2188.4
45°	2132.0	2147.4
47.5°	2075.6	2085.9
50°	2003.9	2014.1
52.5°	1914.2	1916.7
55°	1806.6	1816.8
57.5°	1691.3	1693.8
60°	1563.1	1570.8
62.5°	1427.3	1427.3
65°	1283.8	1289.0
67.5°	1135.2	1148.0
70°	984.0	986.6
72.5°	835.3	835.3
75°	681.6	684.2
77.5°	535.5	535.5
80°	397.2	399.7
82.5°	274.2	279.3
85°	171.7	171.7
87.5°	79.4	71.7
90°	40.5	40.5
92.5°	162.2	130.0
95°	565.4	467.9
97.5°	1354.9	1169.2
100°	1952.1	1730.9
102.5°	2539.6	2350.1
105°	3288.6	3186.8
107.5°	3779.3	3803.9
110°	3966.3	4072.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3983.1	4146.0
115°	3877.4	4103.3
117.5°	3653.4	3904.0
120°	3473.0	3716.5
122.5°	3297.2	3537.4
125°	3046.5	3267.7
127.5°	2821.1	3007.7
130°	2688.2	2860.6
132.5°	2567.7	2722.1
135°	2402.4	2535.6
137.5°	2269.9	2378.9
140°	2179.1	2280.9
142.5°	2103.6	2191.3
145°	1990.7	2057.0
147.5°	1904.0	1958.9
150°	1849.4	1893.9
152.5°	1802.7	1836.4
155°	1749.1	1771.4
157.5°	1706.7	1722.3
160°	1681.4	1690.4
162.5°	1664.8	1673.3
165°	1640.9	1649.8
167.5°	1623.7	1627.5
170°	1619.0	1619.0
172.5°	1606.3	1602.9
175°	1598.7	1598.7
177.5°	1591.8	1588.1
180°	1588.1	1588.1



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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	2.88	3.66	3.93	4.72	6.16	16.07	16.85	17.12	17.91	19.35
	3H	3.58	4.28	4.64	5.35	6.80	17.91	18.61	18.97	19.68	21.14
	4H	3.87	4.54	4.94	5.61	7.07	18.55	19.22	19.63	20.29	21.75
	6H	4.12	4.73	5.20	5.81	7.28	18.98	19.60	20.07	20.67	22.15
	8H	4.18	4.77	5.27	5.86	7.33	19.10	19.69	20.19	20.78	22.25
	12H	4.20	4.76	5.29	5.84	7.33	19.17	19.73	20.26	20.82	22.31
4H	2H	10.09	10.76	11.17	11.83	13.29	16.33	17.00	17.41	18.07	19.53
	3H	11.65	12.21	12.74	13.31	14.78	18.38	18.94	19.46	20.03	21.51
	4H	11.74	12.26	12.83	13.34	14.84	19.14	19.66	20.24	20.75	22.24
	6H	11.75	12.19	12.85	13.30	14.79	19.68	20.13	20.78	21.24	22.73
	8H	11.72	12.14	12.82	13.24	14.74	19.85	20.26	20.95	21.36	22.87
	12H	11.68	12.05	12.79	13.17	14.68	19.94	20.31	21.06	21.43	22.94
8H	4H	13.18	13.60	14.28	14.70	16.21	19.20	19.61	20.30	20.71	22.22
	6H	13.42	13.76	14.55	14.91	16.41	19.83	20.17	20.95	21.31	22.82
	8H	13.44	13.74	14.57	14.86	16.39	20.05	20.35	21.18	21.48	23.00
	12H	13.40	13.67	14.54	14.79	16.35	20.19	20.46	21.33	21.58	23.14
12H	4H	13.32	13.70	14.44	14.82	16.33	19.15	19.52	20.26	20.64	22.15
	6H	13.68	13.98	14.81	15.11	16.63	19.81	20.11	20.94	21.24	22.76
	8H	13.75	14.01	14.88	15.13	16.69	20.04	20.30	21.17	21.43	22.98