

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: P937428

Luminaire Tested: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937428
REPORT IS A COMBINATION OF REPORTS P933557 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

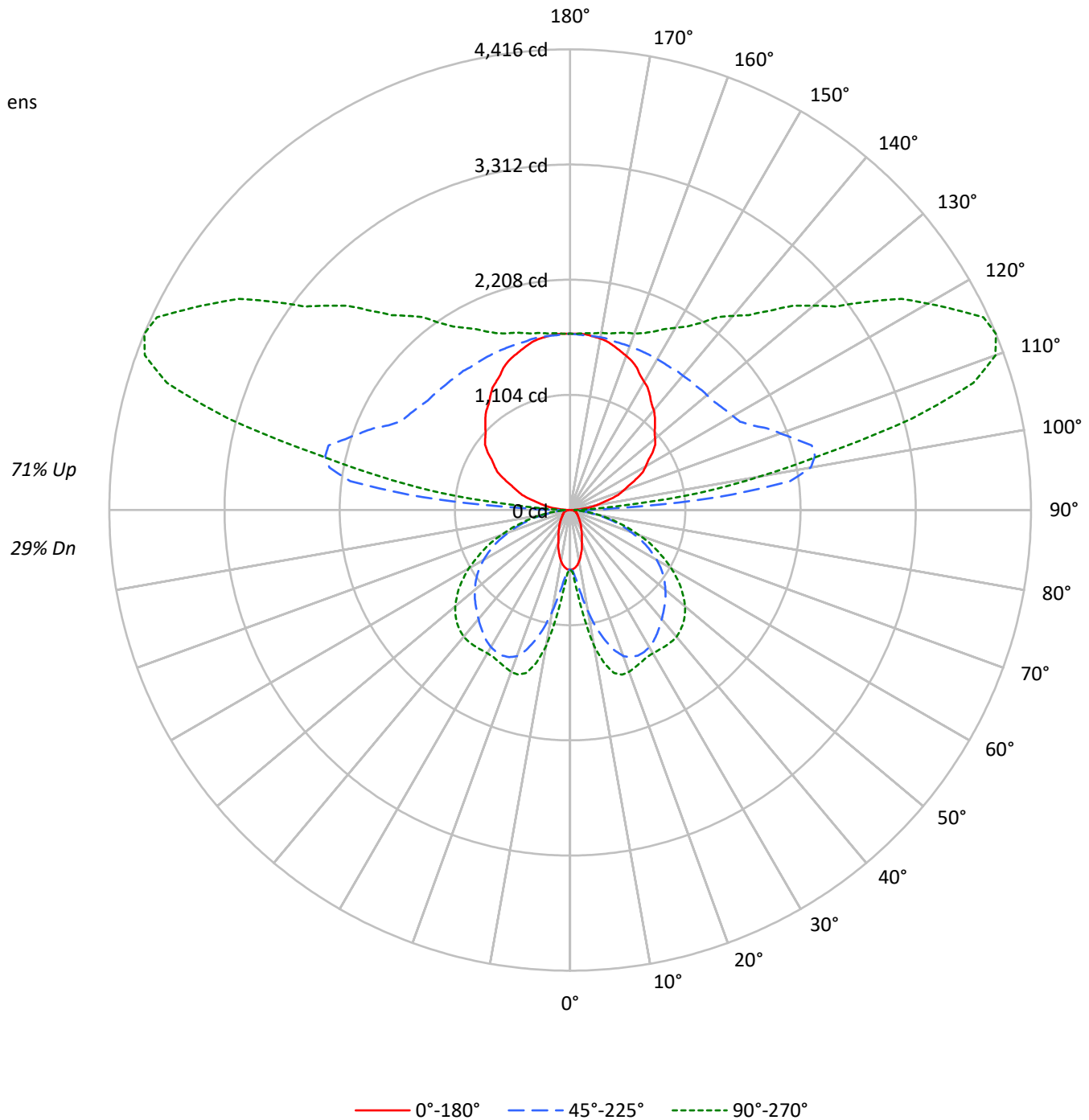
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15373.8 lumens
Efficiency: N/A
Efficacy: 124.4 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): 123.6
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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CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-12-4000K

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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29			29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23			23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19			19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16			16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13			13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11			11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10			10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8			8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7			7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7			7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6			6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1761	1761	1761
5°	1721	2035	2367
10°	1561	2968	3924
15°	1328	3878	4738
20°	1081	4496	4828
25°	902	4705	4730
30°	761	4737	4721
35°	673	4659	4843
40°	587	4558	4970
45°	532	4484	4989
50°	488	4418	4906
55°	468	4322	4689
60°	480	4134	4345
65°	500	3847	3873
70°	534	3358	3273
75°	593	2740	2554
80°	655	1903	1721
85°	593	1011	881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4989 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.6	0.5
10°-20°	326.3	2.1
20°-30°	570.8	3.7
30°-40°	734.8	4.8
40°-50°	820.8	5.3
50°-60°	786.1	5.1
60°-70°	623.0	4.1
70°-80°	366.3	2.4
80°-90°	108.2	0.7
90°-100°	824.4	5.4
100°-110°	2167.4	14.1
110°-120°	2247.4	14.6
120°-130°	1802.7	11.7
130°-140°	1414.5	9.2
140°-150°	1085.6	7.1
150°-160°	781.8	5.1
160°-170°	478.4	3.1
170°-180°	161.6	1.1
0°-30°	970.8	6.3
0°-40°	1705.6	11.1
0°-60°	3312.5	21.5
0°-90°	4410.0	28.7
90°-120°	5239.2	34.1
90°-150°	9541.9	62.1
90°-180°	10964.0	71.3
0°-180°	15373.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	569	569	569	569	569	
5°	555	595	670	758	785	51
15°	416	767	1292	1567	1616	116
25°	265	869	1539	1607	1609	122
35°	179	831	1450	1532	1592	112
45°	123	663	1281	1468	1534	95
55°	88	421	1087	1263	1298	80
65°	70	223	807	908	921	69
75°	51	137	443	487	489	54
85°	18	42	110	121	123	19
90°	11	32	86	43	43	11
95°	109	427	1420	732	498	121
105°	390	591	2396	3638	3394	414
115°	694	842	1919	3829	4370	685
125°	965	1082	1746	2950	3480	857
135°	1150	1266	1691	2381	2700	890
145°	1334	1419	1670	2032	2191	836
155°	1507	1549	1670	1833	1886	693
165°	1626	1648	1670	1736	1757	459
175°	1691	1691	1681	1703	1703	161
180°	1691	1691	1691	1691	1691	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3
2.5°	569.3	569.3	572.9	574.7	578.3	580.2	583.9	587.5	598.5	600.4	604.0
5°	554.6	561.9	585.7	594.8	620.5	655.2	669.9	693.7	743.1	757.7	766.9
7.5°	532.6	549.1	607.6	622.3	686.4	777.9	816.3	867.6	946.3	984.7	1015.8
10°	497.8	532.6	636.9	671.8	776.0	915.2	986.5	1057.9	1176.9	1230.0	1250.1
12.5°	459.4	516.1	668.0	715.6	865.7	1068.9	1155.0	1233.6	1369.1	1440.5	1451.4
15°	415.5	492.4	697.3	766.9	960.9	1197.0	1292.2	1389.2	1515.5	1566.8	1579.6
17.5°	377.0	474.0	724.8	798.0	1034.2	1312.3	1409.3	1489.9	1592.4	1627.2	1636.3
20°	329.5	444.8	743.1	838.3	1111.0	1396.6	1489.9	1552.1	1621.7	1643.6	1647.3
22.5°	294.7	413.6	754.1	853.0	1162.2	1447.8	1526.5	1575.9	1623.5	1630.8	1632.6
25°	265.4	378.9	752.3	869.4	1206.2	1478.9	1539.3	1575.9	1603.3	1607.1	1607.1
27.5°	238.0	340.5	744.9	873.1	1239.1	1486.3	1533.8	1559.4	1572.2	1579.6	1579.6
30°	214.1	303.8	726.6	865.7	1253.8	1478.9	1517.4	1530.2	1542.9	1553.9	1559.4
32.5°	195.8	269.1	699.1	851.1	1255.6	1460.6	1488.1	1495.4	1513.6	1539.3	1548.5
35°	179.4	234.3	668.0	831.0	1244.7	1431.3	1449.6	1457.0	1493.5	1532.0	1544.7
37.5°	162.9	208.7	627.8	796.2	1228.1	1396.6	1409.3	1422.1	1478.9	1524.6	1539.3
40°	146.5	186.7	580.2	757.7	1202.5	1354.4	1365.5	1385.6	1460.6	1513.6	1528.3
42.5°	133.6	168.4	529.0	717.5	1169.6	1306.9	1323.3	1352.6	1438.6	1495.4	1511.8
45°	122.6	150.1	474.0	662.6	1127.5	1257.4	1281.2	1321.5	1413.0	1467.9	1482.5
47.5°	111.6	137.3	417.3	605.8	1081.7	1208.0	1239.1	1284.9	1378.2	1431.3	1444.1
50°	102.5	124.4	360.6	545.4	1032.3	1155.0	1191.5	1239.1	1334.3	1383.7	1400.2
52.5°	95.1	113.5	307.5	485.0	975.6	1100.0	1142.1	1191.5	1281.2	1328.8	1339.8
55°	87.9	104.3	261.7	421.0	917.0	1041.4	1087.2	1134.8	1222.6	1262.9	1270.2
57.5°	84.2	97.0	223.3	360.6	854.8	975.6	1026.8	1070.7	1153.1	1184.3	1191.5
60°	78.7	91.5	194.0	309.4	787.0	913.4	957.3	1001.1	1070.7	1096.4	1101.8
62.5°	73.2	87.9	172.0	259.9	717.5	840.1	884.1	924.3	982.9	1001.1	1008.5
65°	69.6	84.2	155.5	223.3	646.1	763.3	807.2	842.0	889.5	907.8	911.5
67.5°	65.9	80.5	142.7	192.2	574.7	686.4	719.3	752.3	788.8	807.2	809.0
70°	60.4	76.9	131.8	170.2	501.5	598.5	626.0	660.8	690.1	699.1	704.7
72.5°	56.8	71.4	124.4	153.7	426.4	514.3	540.0	560.1	585.7	594.8	594.8
75°	51.2	64.0	117.2	137.3	349.6	421.0	442.9	463.1	483.2	486.8	481.4
77.5°	45.8	56.8	100.7	115.3	272.7	333.1	351.4	362.4	378.9	382.5	384.3
80°	38.5	49.4	78.7	89.7	197.7	245.2	258.1	267.3	281.9	281.9	285.5
82.5°	29.3	38.5	56.8	64.0	133.6	168.4	179.4	184.8	194.0	194.0	194.0
85°	18.3	23.8	36.6	42.1	80.5	102.5	109.8	111.6	119.0	120.8	120.8
87.5°	9.2	12.8	23.8	25.7	42.1	53.1	53.1	56.8	56.8	54.9	53.1
90°	11.4	20.5	29.5	31.7	49.9	74.1	86.2	76.7	57.5	43.1	43.1
92.5°	45.4	122.5	199.8	219.0	308.0	426.5	485.8	425.8	305.7	215.7	207.1
95°	109.0	250.2	391.5	426.8	757.8	1199.3	1419.9	1267.1	961.4	732.1	706.1
97.5°	188.4	313.0	437.6	468.8	1020.8	1756.8	2124.8	2028.2	1835.0	1690.1	1640.7
100°	249.7	362.7	475.6	503.9	1116.5	1933.3	2341.7	2348.8	2362.9	2373.4	2314.6
102.5°	301.9	407.3	512.8	539.1	1160.4	1988.8	2403.0	2526.1	2772.2	2956.9	2906.4
105°	390.5	479.7	569.1	591.4	1193.0	1995.1	2396.2	2672.1	3224.0	3637.9	3610.8
107.5°	481.3	564.5	647.8	668.6	1199.0	1906.2	2259.9	2644.9	3414.7	3992.0	3998.6
110°	542.6	617.7	692.9	711.7	1189.9	1827.6	2146.4	2576.7	3437.3	4082.8	4111.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	602.7	674.4	746.0	763.9	1190.4	1758.9	2043.1	2483.6	3364.4	4025.0	4068.4
115°	693.5	759.6	825.7	842.2	1201.3	1680.0	1919.4	2343.7	3192.2	3828.6	3888.7
117.5°	783.2	843.2	903.3	918.3	1223.6	1630.7	1834.3	2217.1	2983.0	3557.3	3624.0
120°	835.4	891.9	948.5	962.6	1241.8	1614.2	1800.3	2150.1	2849.8	3374.6	3439.4
122.5°	886.5	943.6	1000.5	1014.8	1267.9	1605.4	1774.2	2089.2	2719.3	3191.8	3255.8
125°	964.9	1016.8	1068.7	1081.7	1303.1	1598.2	1745.8	2013.4	2548.6	2950.0	3008.9
127.5°	1028.3	1080.8	1133.3	1146.4	1338.3	1594.0	1721.9	1951.7	2411.3	2755.9	2805.6
130°	1062.5	1118.9	1175.4	1189.5	1364.0	1596.6	1712.8	1917.4	2326.6	2633.4	2679.3
132.5°	1097.7	1154.1	1210.6	1224.7	1384.7	1598.1	1704.8	1888.0	2254.3	2529.0	2570.1
135°	1149.9	1201.3	1252.8	1265.6	1407.5	1596.7	1691.3	1844.7	2151.3	2381.3	2416.8
137.5°	1203.2	1254.1	1305.1	1317.8	1441.5	1606.5	1689.0	1818.6	2078.0	2272.5	2301.5
140°	1247.5	1294.4	1341.3	1353.0	1462.3	1608.1	1681.0	1793.0	2017.0	2185.0	2212.1
142.5°	1281.5	1324.9	1368.3	1379.1	1479.7	1613.9	1681.0	1779.4	1976.2	2123.7	2147.0
145°	1333.7	1371.6	1409.4	1418.9	1502.4	1614.0	1669.7	1750.1	1911.1	2031.8	2049.4
147.5°	1385.9	1422.8	1459.6	1468.8	1535.7	1625.1	1669.7	1733.0	1859.7	1954.6	1969.3
150°	1419.9	1453.2	1486.5	1494.9	1553.2	1630.9	1669.7	1723.2	1830.1	1910.3	1922.2
152.5°	1455.1	1480.3	1505.6	1511.9	1564.5	1634.6	1669.7	1715.4	1806.6	1875.1	1884.0
155°	1507.4	1526.0	1544.7	1549.4	1589.5	1643.0	1669.7	1706.0	1778.6	1833.1	1839.0
157.5°	1545.9	1564.1	1582.3	1586.9	1614.5	1651.4	1669.7	1697.9	1754.4	1796.8	1801.0
160°	1572.0	1586.2	1600.3	1603.9	1625.8	1655.1	1669.7	1693.9	1742.3	1778.6	1781.0
162.5°	1598.1	1608.7	1619.3	1622.0	1637.9	1659.1	1669.7	1690.1	1730.9	1761.6	1763.9
165°	1626.5	1636.1	1645.7	1648.1	1655.3	1664.9	1669.7	1684.4	1713.6	1735.5	1737.9
167.5°	1652.6	1657.2	1661.7	1662.9	1668.9	1677.0	1681.0	1690.7	1709.8	1724.2	1725.2
170°	1669.7	1674.3	1678.8	1679.9	1680.3	1680.7	1681.0	1690.7	1709.8	1724.2	1724.2
172.5°	1678.7	1679.7	1680.7	1681.0	1681.0	1681.0	1681.0	1688.6	1703.8	1715.1	1714.2
175°	1691.3	1691.3	1691.3	1691.3	1687.8	1683.3	1681.0	1685.8	1695.4	1702.6	1702.6
177.5°	1691.3	1691.3	1691.3	1691.3	1688.7	1685.1	1683.3	1687.1	1694.7	1700.3	1699.3
180°	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	569.3	569.3
2.5°	607.6	604.0
5°	781.6	785.2
7.5°	1052.5	1050.6
10°	1308.7	1325.2
12.5°	1495.4	1499.0
15°	1608.9	1616.2
17.5°	1652.8	1654.6
20°	1654.6	1651.0
22.5°	1634.4	1630.8
25°	1610.7	1608.9
27.5°	1588.7	1590.6
30°	1579.6	1585.0
32.5°	1579.6	1588.7
35°	1583.2	1592.4
37.5°	1581.4	1592.4
40°	1574.0	1586.9
42.5°	1553.9	1563.1
45°	1522.8	1533.8
47.5°	1482.5	1489.9
50°	1431.3	1438.6
52.5°	1367.3	1369.1
55°	1290.4	1297.7
57.5°	1208.0	1209.8
60°	1116.5	1121.9
62.5°	1019.5	1019.5
65°	917.0	920.6
67.5°	810.9	819.9
70°	702.9	704.7
72.5°	596.7	596.7
75°	486.8	488.7
77.5°	382.5	382.5
80°	283.7	285.5
82.5°	195.8	199.5
85°	122.6	122.6
87.5°	56.8	51.2
90°	43.1	43.1
92.5°	172.7	138.4
95°	602.2	498.3
97.5°	1443.0	1245.2
100°	2079.0	1843.4
102.5°	2704.6	2502.9
105°	3502.3	3393.9
107.5°	4024.9	4051.1
110°	4224.1	4337.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4241.9	4415.5
115°	4129.4	4370.0
117.5°	3890.9	4157.8
120°	3698.7	3958.0
122.5°	3511.5	3767.3
125°	3244.5	3480.1
127.5°	3004.4	3203.2
130°	2862.9	3046.6
132.5°	2734.6	2899.0
135°	2558.5	2700.3
137.5°	2417.5	2533.5
140°	2320.7	2429.1
142.5°	2240.3	2333.7
145°	2120.1	2190.7
147.5°	2027.8	2086.3
150°	1969.6	2017.0
152.5°	1919.9	1955.7
155°	1862.8	1886.5
157.5°	1817.6	1834.3
160°	1790.6	1800.3
162.5°	1773.0	1782.1
165°	1747.5	1757.1
167.5°	1729.2	1733.2
170°	1724.2	1724.2
172.5°	1710.7	1707.1
175°	1702.6	1702.6
177.5°	1695.3	1691.3
180°	1691.3	1691.3



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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	0.60	1.32	1.72	2.43	3.98	13.79	14.51	14.91	15.62	17.17
	3H	1.30	1.94	2.42	3.06	4.62	15.63	16.27	16.75	17.39	18.95
	4H	1.59	2.20	2.72	3.32	4.89	16.27	16.88	17.40	18.00	19.57
	6H	1.83	2.39	2.97	3.52	5.10	16.70	17.26	17.84	18.38	19.96
	8H	1.89	2.43	3.04	3.57	5.14	16.82	17.35	17.96	18.49	20.06
	12H	1.91	2.42	3.06	3.55	5.14	16.88	17.39	18.03	18.52	20.12
4H	2H	7.81	8.42	8.95	9.54	11.11	14.05	14.66	15.19	15.78	17.35
	3H	9.36	9.87	10.51	11.02	12.60	16.09	16.60	17.23	17.75	19.32
	4H	9.45	9.92	10.60	11.06	12.65	16.85	17.32	18.00	18.46	20.06
	6H	9.45	9.85	10.61	11.01	12.60	17.39	17.79	18.54	18.95	20.54
	8H	9.42	9.80	10.58	10.95	12.56	17.55	17.92	18.70	19.08	20.68
	12H	9.37	9.72	10.55	10.88	12.49	17.64	17.98	18.81	19.14	20.75
8H	4H	10.89	11.26	12.04	12.41	14.02	16.90	17.28	18.05	18.43	20.03
	6H	11.12	11.43	12.30	12.63	14.23	17.53	17.84	18.70	19.03	20.63
	8H	11.14	11.41	12.32	12.58	14.20	17.75	18.02	18.93	19.19	20.81
	12H	11.10	11.34	12.28	12.51	14.16	17.89	18.13	19.07	19.30	20.95
12H	4H	11.02	11.36	12.19	12.53	14.14	16.84	17.19	18.02	18.35	19.96
	6H	11.38	11.65	12.56	12.82	14.44	17.51	17.78	18.69	18.95	20.57
	8H	11.44	11.68	12.63	12.85	14.50	17.73	17.97	18.92	19.14	20.80