

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: P937527

Luminaire Tested: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937527
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-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

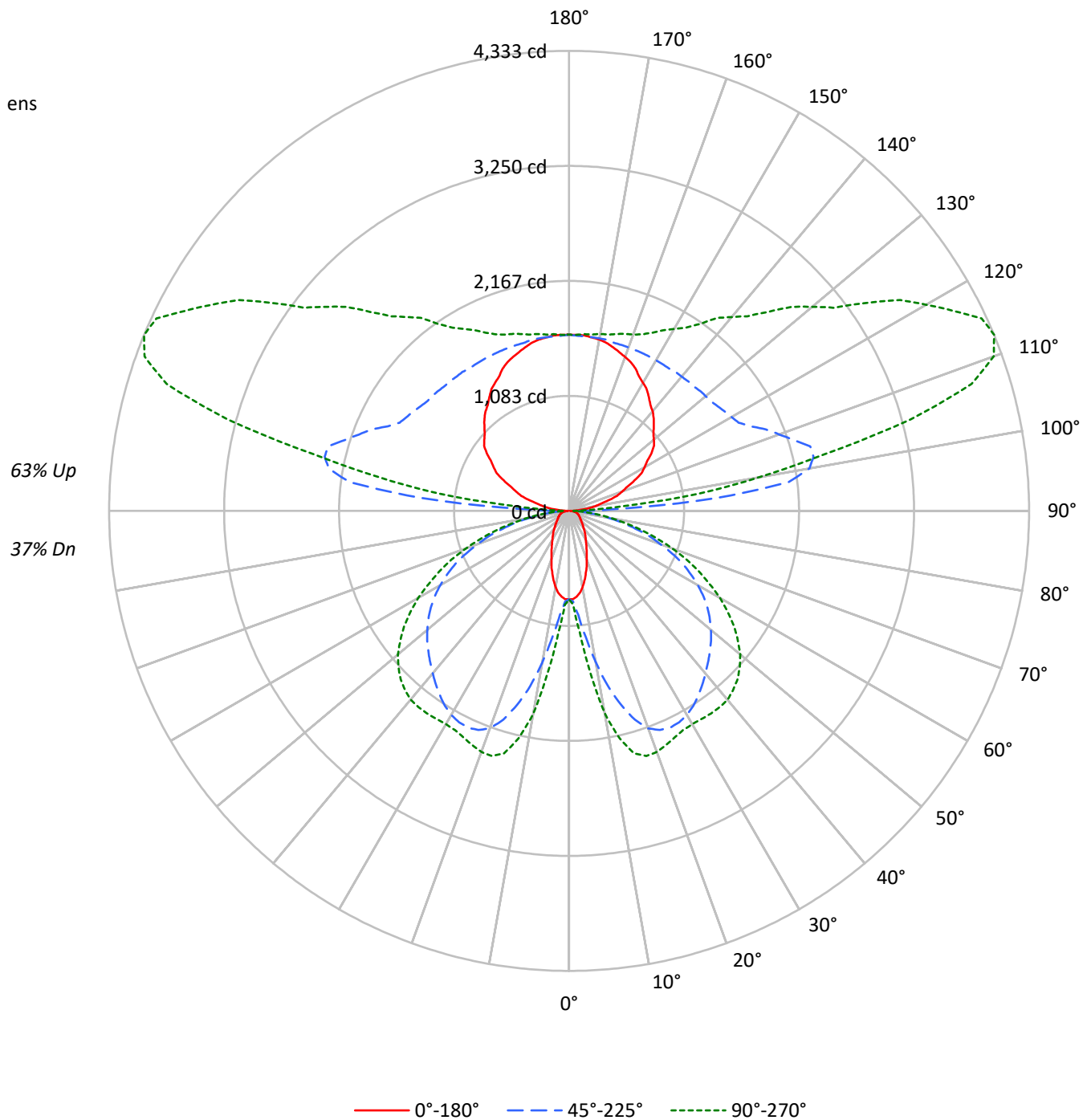
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17207.9 lumens
Efficiency: N/A
Efficacy: 116.6 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°	2576	2576	2576
5°	2517	2978	3463
10°	2284	4343	5741
15°	1942	5675	6931
20°	1582	6577	7064
25°	1320	6885	6921
30°	1114	6930	6908
35°	985	6817	7086
40°	859	6669	7271
45°	778	6561	7299
50°	715	6465	7179
55°	685	6323	6860
60°	702	6048	6358
65°	732	5629	5668
70°	782	4912	4788
75°	869	4008	3736
80°	956	2784	2517
85°	868	1480	1288

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7299 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.7	0.6
10°-20°	477.5	2.8
20°-30°	835.2	4.9
30°-40°	1075.1	6.2
40°-50°	1200.9	7.0
50°-60°	1150.2	6.7
60°-70°	911.5	5.3
70°-80°	536.0	3.1
80°-90°	155.2	0.9
90°-100°	809.0	4.7
100°-110°	2126.9	12.4
110°-120°	2205.3	12.8
120°-130°	1768.9	10.3
130°-140°	1388.0	8.1
140°-150°	1065.3	6.2
150°-160°	767.2	4.5
160°-170°	469.4	2.7
170°-180°	158.6	0.9
0°-30°	1420.4	8.3
0°-40°	2495.5	14.5
0°-60°	4846.5	28.2
0°-90°	6449.2	37.5
90°-120°	5141.2	29.9
90°-150°	9363.4	54.4
90°-180°	10759.0	62.5
0°-180°	17207.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	833	833	833	833	833	
5°	811	870	980	1109	1149	75
15°	608	1122	1891	2292	2365	169
25°	388	1272	2252	2351	2354	179
35°	262	1216	2121	2242	2330	164
45°	179	969	1875	2148	2244	139
55°	128	616	1591	1848	1899	117
65°	102	327	1181	1328	1347	101
75°	75	201	648	712	715	78
85°	27	62	161	177	179	28
90°	11	31	85	42	42	11
95°	107	419	1393	718	489	119
105°	383	580	2351	3570	3330	406
115°	680	826	1884	3757	4288	672
125°	947	1062	1713	2895	3415	841
135°	1128	1242	1660	2337	2650	873
145°	1309	1392	1638	1994	2150	820
155°	1479	1520	1638	1799	1851	680
165°	1596	1617	1638	1703	1724	450
175°	1660	1660	1650	1671	1671	158
180°	1660	1660	1660	1660	1660	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8
2.5°	832.8	832.8	838.2	840.8	846.2	848.9	854.2	859.6	875.7	878.3	883.7
5°	811.4	822.1	856.9	870.3	907.8	958.7	980.1	1015.0	1087.3	1108.7	1122.1
7.5°	779.3	803.4	889.0	910.5	1004.2	1138.2	1194.4	1269.4	1384.5	1440.8	1486.3
10°	728.4	779.3	931.9	982.8	1135.5	1339.0	1443.5	1547.9	1722.0	1799.6	1829.1
12.5°	672.1	755.2	977.4	1047.1	1266.7	1564.0	1689.8	1805.0	2003.1	2107.6	2123.6
15°	607.9	720.3	1020.4	1122.1	1406.0	1751.4	1890.7	2032.6	2217.4	2292.3	2311.1
17.5°	551.6	693.6	1060.5	1167.6	1513.1	1920.1	2062.0	2179.9	2329.8	2380.7	2394.1
20°	482.0	650.7	1087.3	1226.5	1625.6	2043.3	2179.9	2270.9	2372.7	2404.8	2410.2
22.5°	431.1	605.2	1103.4	1248.0	1700.5	2118.3	2233.4	2305.7	2375.4	2386.1	2388.7
25°	388.3	554.3	1100.7	1272.1	1764.8	2163.8	2252.2	2305.7	2345.9	2351.3	2351.3
27.5°	348.1	498.1	1090.0	1277.4	1813.0	2174.5	2244.1	2281.6	2300.4	2311.1	2311.1
30°	313.3	444.5	1063.2	1266.7	1834.4	2163.8	2220.0	2238.8	2257.5	2273.6	2281.6
32.5°	286.5	393.6	1023.0	1245.3	1837.1	2137.0	2177.2	2187.9	2214.7	2252.2	2265.6
35°	262.4	342.8	977.4	1215.8	1821.0	2094.2	2121.0	2131.7	2185.2	2241.5	2260.2
37.5°	238.3	305.3	918.5	1165.0	1796.9	2043.3	2062.0	2080.8	2163.8	2230.7	2252.2
40°	214.2	273.1	848.9	1108.7	1759.4	1981.7	1997.8	2027.2	2137.0	2214.7	2236.1
42.5°	195.5	246.4	773.9	1049.8	1711.2	1912.1	1936.2	1979.0	2104.9	2187.9	2212.0
45°	179.4	219.6	693.6	969.4	1649.7	1839.8	1874.6	1933.5	2067.4	2147.7	2169.2
47.5°	163.3	200.8	610.6	886.4	1582.7	1767.5	1813.0	1879.9	2016.5	2094.2	2112.9
50°	150.0	182.1	527.5	798.0	1510.4	1689.8	1743.4	1813.0	1952.2	2024.6	2048.7
52.5°	139.2	166.0	449.9	709.6	1427.4	1609.5	1671.1	1743.4	1874.6	1944.2	1960.3
55°	128.5	152.6	382.9	615.9	1341.7	1523.8	1590.7	1660.4	1788.9	1847.8	1858.5
57.5°	123.2	141.9	326.7	527.5	1250.6	1427.4	1502.4	1566.6	1687.1	1732.7	1743.4
60°	115.1	133.9	283.9	452.6	1151.6	1336.3	1400.6	1464.9	1566.6	1604.1	1612.2
62.5°	107.1	128.5	251.7	380.3	1049.8	1229.2	1293.5	1352.4	1438.1	1464.9	1475.6
65°	101.8	123.2	227.6	326.7	945.3	1116.8	1181.0	1231.9	1301.5	1328.3	1333.7
67.5°	96.4	117.8	208.9	281.2	840.8	1004.2	1052.5	1100.7	1154.2	1181.0	1183.7
70°	88.4	112.5	192.8	249.0	733.7	875.7	915.8	966.7	1009.6	1023.0	1031.1
72.5°	83.0	104.4	182.1	224.9	623.9	752.5	790.0	819.4	856.9	870.3	870.3
75°	75.0	93.7	171.4	200.8	511.5	615.9	648.0	677.5	707.0	712.3	704.3
77.5°	66.9	83.0	147.3	168.7	399.0	487.4	514.1	530.2	554.3	559.7	562.4
80°	56.2	72.3	115.1	131.2	289.2	358.8	377.6	391.0	412.4	412.4	417.7
82.5°	42.8	56.2	83.0	93.7	195.5	246.4	262.4	270.5	283.9	283.9	283.9
85°	26.8	34.8	53.6	61.6	117.8	150.0	160.7	163.3	174.1	176.7	176.7
87.5°	13.4	18.7	34.8	37.5	61.6	77.7	77.7	83.0	83.0	80.3	77.7
90°	11.2	20.1	28.9	31.2	49.0	72.7	84.6	75.2	56.4	42.3	42.3
92.5°	44.5	120.2	196.0	214.9	302.2	418.5	476.7	417.8	300.0	211.6	203.2
95°	106.9	245.6	384.2	418.8	743.6	1176.8	1393.4	1243.4	943.4	718.4	692.9
97.5°	184.9	307.2	429.4	460.1	1001.7	1723.9	2085.1	1990.3	1800.7	1658.5	1610.0
100°	245.0	355.9	466.8	494.5	1095.6	1897.1	2297.9	2304.8	2318.7	2329.0	2271.3
102.5°	296.3	399.7	503.2	529.1	1138.7	1951.6	2358.0	2478.8	2720.3	2901.6	2852.0
105°	383.2	470.8	558.4	580.3	1170.7	1957.8	2351.3	2622.2	3163.7	3569.9	3543.3
107.5°	472.3	554.0	635.6	656.1	1176.6	1870.6	2217.6	2595.4	3350.8	3917.4	3923.8
110°	532.4	606.2	679.9	698.4	1167.6	1793.4	2106.2	2528.5	3373.0	4006.4	4034.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	591.5	661.8	732.0	749.6	1168.1	1726.0	2004.9	2437.1	3301.4	3949.7	3992.2
115°	680.5	745.4	810.2	826.5	1178.8	1648.6	1883.5	2299.8	3132.5	3756.9	3816.0
117.5°	768.5	827.5	886.4	901.1	1200.8	1600.2	1800.0	2175.7	2927.2	3490.8	3556.2
120°	819.8	875.2	930.7	944.6	1218.6	1584.0	1766.6	2109.9	2796.5	3311.4	3375.1
122.5°	869.9	925.9	981.8	995.8	1244.2	1575.4	1741.0	2050.1	2668.4	3132.1	3194.9
125°	946.8	997.8	1048.7	1061.5	1278.7	1568.3	1713.1	1975.7	2500.9	2894.9	2952.6
127.5°	1009.1	1060.6	1112.1	1125.0	1313.2	1564.2	1689.7	1915.2	2366.2	2704.4	2753.1
130°	1042.6	1098.0	1153.4	1167.3	1338.5	1566.7	1680.8	1881.6	2283.1	2584.1	2629.2
132.5°	1077.1	1132.6	1188.0	1201.8	1358.8	1568.2	1672.9	1852.6	2212.1	2481.7	2522.0
135°	1128.4	1178.8	1229.3	1241.9	1381.2	1566.8	1659.6	1810.1	2111.0	2336.8	2371.6
137.5°	1180.7	1230.7	1280.6	1293.1	1414.5	1576.5	1657.4	1784.6	2039.1	2229.9	2258.4
140°	1224.1	1270.2	1316.2	1327.7	1435.0	1578.1	1649.6	1759.4	1979.3	2144.2	2170.8
142.5°	1257.5	1300.1	1342.7	1353.3	1452.0	1583.7	1649.6	1746.1	1939.2	2084.0	2106.9
145°	1308.8	1345.9	1383.0	1392.3	1474.3	1583.8	1638.5	1717.4	1875.3	1993.8	2011.1
147.5°	1360.0	1396.1	1432.3	1441.3	1507.0	1594.7	1638.5	1700.6	1824.9	1918.1	1932.4
150°	1393.4	1426.0	1458.7	1466.9	1524.1	1600.4	1638.5	1691.0	1795.9	1874.6	1886.2
152.5°	1427.9	1452.6	1477.5	1483.6	1535.2	1604.0	1638.5	1683.3	1772.8	1840.0	1848.8
155°	1479.2	1497.5	1515.8	1520.4	1559.8	1612.3	1638.5	1674.1	1745.3	1798.8	1804.6
157.5°	1517.0	1534.9	1552.7	1557.2	1584.3	1620.5	1638.5	1666.2	1721.6	1763.2	1767.3
160°	1542.6	1556.6	1570.4	1573.9	1595.4	1624.1	1638.5	1662.2	1709.7	1745.3	1747.7
162.5°	1568.2	1578.6	1589.0	1591.6	1607.3	1628.0	1638.5	1658.5	1698.6	1728.6	1730.9
165°	1596.1	1605.5	1614.9	1617.2	1624.3	1633.8	1638.5	1652.9	1681.5	1703.0	1705.4
167.5°	1621.7	1626.2	1630.6	1631.8	1637.7	1645.6	1649.6	1659.0	1677.9	1692.0	1692.9
170°	1638.5	1643.0	1647.4	1648.5	1648.8	1649.3	1649.6	1659.0	1677.9	1692.0	1692.0
172.5°	1647.3	1648.3	1649.3	1649.6	1649.6	1649.6	1649.6	1657.0	1671.9	1683.0	1682.1
175°	1659.6	1659.6	1659.6	1659.6	1656.3	1651.8	1649.6	1654.3	1663.7	1670.7	1670.7
177.5°	1659.6	1659.6	1659.6	1659.6	1657.1	1653.6	1651.8	1655.5	1663.0	1668.5	1667.5
180°	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	832.8	832.8
2.5°	889.0	883.7
5°	1143.5	1148.9
7.5°	1539.9	1537.2
10°	1914.8	1938.9
12.5°	2187.9	2193.3
15°	2353.9	2364.6
17.5°	2418.2	2420.9
20°	2420.9	2415.5
22.5°	2391.4	2386.1
25°	2356.6	2353.9
27.5°	2324.5	2327.1
30°	2311.1	2319.1
32.5°	2311.1	2324.5
35°	2316.4	2329.8
37.5°	2313.8	2329.8
40°	2303.0	2321.8
42.5°	2273.6	2287.0
45°	2228.1	2244.1
47.5°	2169.2	2179.9
50°	2094.2	2104.9
52.5°	2000.5	2003.1
55°	1888.0	1898.7
57.5°	1767.5	1770.2
60°	1633.6	1641.6
62.5°	1491.7	1491.7
65°	1341.7	1347.1
67.5°	1186.4	1199.8
70°	1028.4	1031.1
72.5°	873.0	873.0
75°	712.3	715.0
77.5°	559.7	559.7
80°	415.1	417.7
82.5°	286.5	291.9
85°	179.4	179.4
87.5°	83.0	75.0
90°	42.3	42.3
92.5°	169.5	135.9
95°	590.9	489.0
97.5°	1416.0	1221.9
100°	2040.1	1808.9
102.5°	2654.0	2456.0
105°	3436.8	3330.4
107.5°	3949.6	3975.3
110°	4145.1	4256.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4162.6	4332.9
115°	4052.1	4288.2
117.5°	3818.1	4080.0
120°	3629.5	3884.0
122.5°	3445.8	3696.8
125°	3183.8	3415.0
127.5°	2948.2	3143.3
130°	2809.3	2989.6
132.5°	2683.4	2844.8
135°	2510.7	2649.8
137.5°	2372.2	2486.1
140°	2277.3	2383.7
142.5°	2198.4	2290.0
145°	2080.4	2149.7
147.5°	1989.8	2047.2
150°	1932.8	1979.3
152.5°	1884.0	1919.1
155°	1827.9	1851.2
157.5°	1783.6	1800.0
160°	1757.1	1766.6
162.5°	1739.8	1748.7
165°	1714.8	1724.2
167.5°	1696.9	1700.8
170°	1692.0	1692.0
172.5°	1678.7	1675.2
175°	1670.7	1670.7
177.5°	1663.6	1659.6
180°	1659.6	1659.6



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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	3.03	3.82	4.08	4.88	6.31	16.22	17.01	17.27	18.07	19.50
	3H	3.73	4.43	4.79	5.50	6.96	18.06	18.77	19.12	19.84	21.29
	4H	4.02	4.69	5.10	5.76	7.23	18.71	19.38	19.78	20.45	21.91
	6H	4.27	4.89	5.35	5.96	7.43	19.14	19.75	20.22	20.83	22.30
	8H	4.34	4.92	5.42	6.01	7.48	19.26	19.85	20.34	20.94	22.40
	12H	4.35	4.91	5.44	5.99	7.49	19.33	19.88	20.42	20.97	22.46
4H	2H	10.24	10.91	11.32	11.98	13.45	16.49	17.16	17.57	18.23	19.69
	3H	11.80	12.36	12.89	13.46	14.94	18.53	19.09	19.62	20.19	21.66
	4H	11.89	12.41	12.99	13.50	14.99	19.30	19.81	20.39	20.90	22.40
	6H	11.90	12.34	13.00	13.45	14.94	19.84	20.28	20.94	21.39	22.88
	8H	11.88	12.29	12.98	13.39	14.90	20.00	20.41	21.10	21.52	23.02
	12H	11.83	12.20	12.95	13.32	14.83	20.09	20.47	21.21	21.58	23.09
8H	4H	13.34	13.75	14.44	14.85	16.36	19.35	19.76	20.45	20.87	22.37
	6H	13.58	13.92	14.70	15.06	16.56	19.98	20.32	21.10	21.47	22.97
	8H	13.59	13.89	14.72	15.02	16.54	20.20	20.50	21.33	21.63	23.15
	12H	13.56	13.82	14.69	14.94	16.50	20.35	20.61	21.48	21.73	23.29
12H	4H	13.48	13.85	14.60	14.97	16.48	19.30	19.67	20.42	20.79	22.30
	6H	13.83	14.13	14.96	15.26	16.78	19.96	20.26	21.09	21.39	22.91
	8H	13.90	14.16	15.03	15.29	16.84	20.19	20.46	21.33	21.58	23.14