

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: P938446

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938446
REPORT IS A COMBINATION OF REPORTS P933647 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

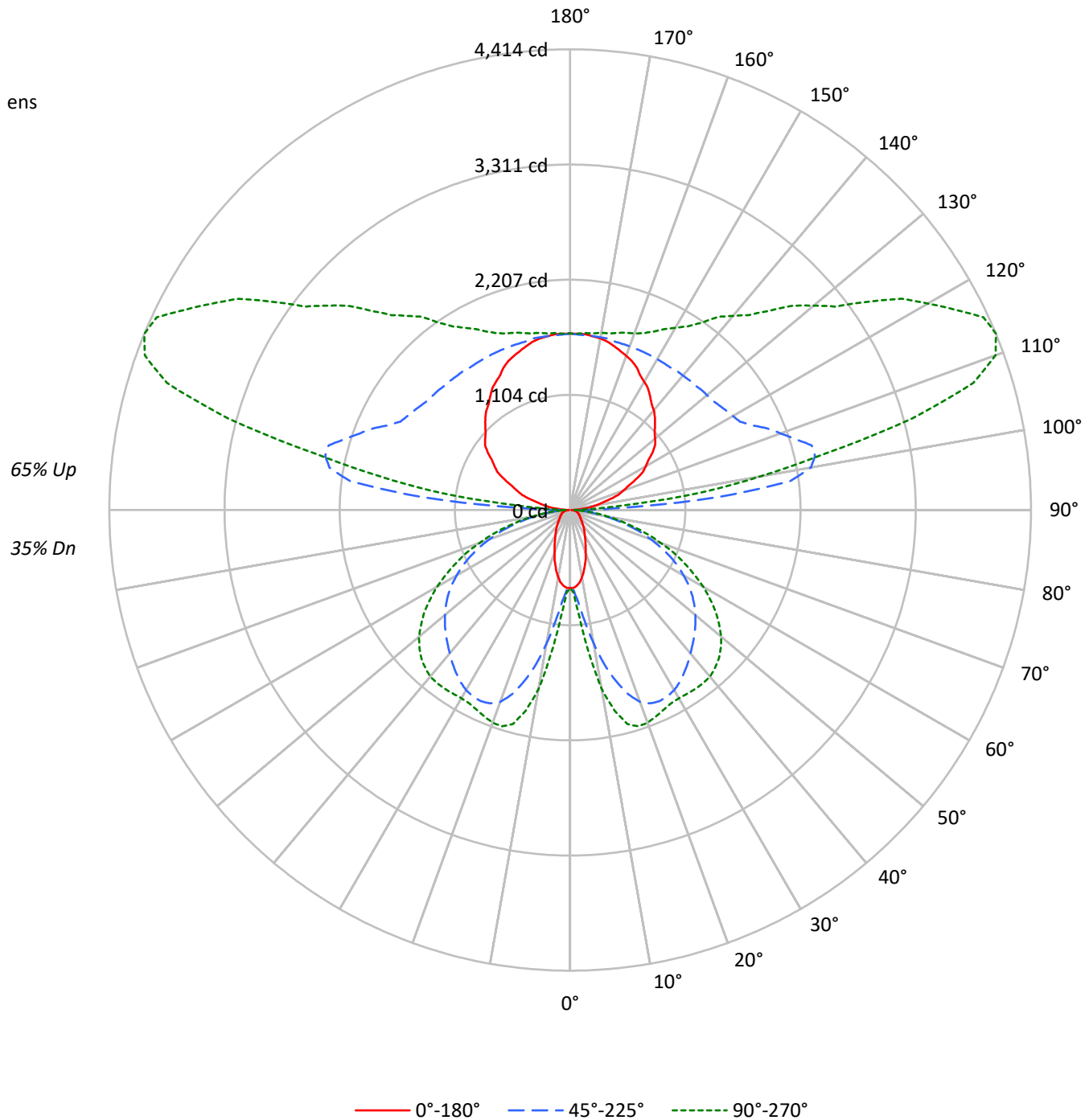
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16750.1 lumens
Efficiency: N/A
Efficacy: 115.7 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): 144.8
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			
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
RCR																				
0	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35		
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28		
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23		
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19		
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16		
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14		
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12		
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10		
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9		
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8		
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3469	3469	3469
5°	3388	4009	4662
10°	3073	5844	7729
15°	2612	7635	9333
20°	2127	8847	9512
25°	1774	9259	9319
30°	1496	9317	9301
35°	1323	9163	9541
40°	1153	8961	9790
45°	1044	8814	9829
50°	957	8681	9666
55°	916	8487	9238
60°	938	8115	8561
65°	976	7548	7632
70°	1040	6582	6447
75°	1153	5367	5031
80°	1260	3722	3390
85°	1118	1976	1736

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9829 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.7	0.6
10°-20°	428.6	2.6
20°-30°	749.7	4.5
30°-40°	965.1	5.8
40°-50°	1078.0	6.4
50°-60°	1032.4	6.2
60°-70°	818.2	4.9
70°-80°	481.1	2.9
80°-90°	140.1	0.8
90°-100°	824.1	4.9
100°-110°	2166.7	12.9
110°-120°	2246.6	13.4
120°-130°	1802.1	10.8
130°-140°	1414.0	8.4
140°-150°	1085.3	6.5
150°-160°	781.6	4.7
160°-170°	478.2	2.9
170°-180°	161.6	1.0
0°-30°	1275.0	7.6
0°-40°	2240.1	13.4
0°-60°	4350.5	26.0
0°-90°	5789.9	34.6
90°-120°	5237.4	31.3
90°-150°	9538.8	56.9
90°-180°	10960.0	65.4
0°-180°	16750.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	748	748	748	748	748	
5°	728	781	880	995	1031	67
15°	546	1007	1697	2058	2123	152
25°	349	1142	2022	2111	2113	161
35°	236	1091	1904	2012	2091	147
45°	161	870	1683	1928	2014	125
55°	115	553	1428	1659	1704	105
65°	91	293	1060	1192	1209	90
75°	67	180	582	640	642	70
85°	24	55	144	159	161	25
90°	11	32	86	43	43	11
95°	109	427	1420	732	498	121
105°	390	591	2395	3637	3393	414
115°	693	842	1919	3827	4368	685
125°	964	1081	1745	2949	3479	856
135°	1149	1265	1691	2381	2699	889
145°	1333	1418	1669	2031	2190	835
155°	1507	1549	1669	1833	1886	692
165°	1626	1648	1669	1735	1756	459
175°	1691	1691	1680	1702	1702	160
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°	747.6	747.6	747.6	747.6	747.6	747.6	747.6	747.6	747.6	747.6	747.6
2.5°	747.6	747.6	752.5	754.8	759.6	762.0	766.8	771.6	786.1	788.5	793.3
5°	728.3	738.0	769.3	781.3	814.9	860.6	879.8	911.1	975.9	995.2	1007.2
7.5°	699.5	721.2	798.1	817.3	901.5	1021.6	1072.1	1139.4	1242.8	1293.3	1334.2
10°	653.8	699.5	836.6	882.3	1019.2	1201.9	1295.7	1389.5	1545.7	1615.4	1641.8
12.5°	603.4	677.9	877.4	939.9	1137.0	1403.8	1516.8	1620.2	1798.1	1891.9	1906.2
15°	545.7	646.7	915.9	1007.2	1262.0	1572.1	1697.1	1824.5	1990.4	2057.7	2074.5
17.5°	495.2	622.6	951.9	1048.1	1358.2	1723.6	1851.0	1956.7	2091.3	2137.0	2149.1
20°	432.7	584.2	975.9	1100.9	1459.1	1834.2	1956.7	2038.5	2129.8	2158.7	2163.5
22.5°	387.1	543.2	990.4	1120.2	1526.5	1901.5	2004.8	2069.7	2132.3	2141.8	2144.3
25°	348.6	497.6	988.0	1141.9	1584.1	1942.3	2021.7	2069.7	2105.8	2110.6	2110.6
27.5°	312.5	447.1	978.4	1146.7	1627.4	1952.0	2014.5	2048.1	2065.0	2074.5	2074.5
30°	281.3	399.1	954.3	1137.0	1646.6	1942.3	1992.8	2009.7	2026.5	2040.9	2048.1
32.5°	257.2	353.4	918.3	1117.8	1649.1	1918.3	1954.4	1964.0	1988.0	2021.7	2033.7
35°	235.6	307.7	877.4	1091.4	1634.6	1879.9	1903.9	1913.5	1961.5	2012.0	2028.9
37.5°	213.9	274.1	824.5	1045.7	1613.0	1834.2	1851.0	1867.8	1942.3	2002.4	2021.7
40°	192.3	245.2	762.0	995.2	1579.3	1778.9	1793.3	1819.7	1918.3	1988.0	2007.2
42.5°	175.5	221.1	694.7	942.3	1536.1	1716.4	1738.0	1776.4	1889.4	1964.0	1985.6
45°	161.1	197.1	622.6	870.2	1480.8	1651.4	1682.7	1735.6	1855.8	1927.9	1947.2
47.5°	146.6	180.3	548.1	795.7	1420.7	1586.6	1627.4	1687.6	1810.1	1879.9	1896.7
50°	134.6	163.5	473.6	716.3	1355.8	1516.8	1564.9	1627.4	1752.4	1817.4	1838.9
52.5°	125.0	149.0	403.9	637.0	1281.2	1444.7	1500.0	1564.9	1682.7	1745.2	1759.6
55°	115.3	137.0	343.8	552.9	1204.4	1367.8	1427.9	1490.4	1605.8	1658.6	1668.3
57.5°	110.6	127.4	293.3	473.6	1122.6	1281.2	1348.5	1406.3	1514.5	1555.3	1564.9
60°	103.3	120.2	254.8	406.2	1033.7	1199.5	1257.2	1314.9	1406.3	1440.0	1447.1
62.5°	96.1	115.3	226.0	341.4	942.3	1103.4	1161.1	1214.0	1290.9	1314.9	1324.5
65°	91.3	110.6	204.3	293.3	848.6	1002.4	1060.1	1105.8	1168.2	1192.4	1197.2
67.5°	86.5	105.8	187.5	252.4	754.8	901.5	944.7	988.0	1036.1	1060.1	1062.5
70°	79.3	101.0	173.1	223.6	658.7	786.1	822.1	867.8	906.3	918.3	925.5
72.5°	74.5	93.8	163.5	201.9	560.1	675.5	709.2	735.6	769.3	781.3	781.3
75°	67.3	84.1	153.8	180.3	459.2	552.9	581.7	608.2	634.7	639.5	632.2
77.5°	60.1	74.5	132.2	151.5	358.2	437.5	461.5	475.9	497.6	502.4	504.8
80°	50.5	64.9	103.3	117.8	259.6	322.1	338.9	350.9	370.2	370.2	375.0
82.5°	38.5	50.5	74.5	84.1	175.5	221.1	235.6	242.8	254.8	254.8	254.8
85°	24.0	31.3	48.1	55.3	105.8	134.6	144.3	146.6	156.3	158.6	158.6
87.5°	12.0	16.8	31.3	33.7	55.3	69.7	69.7	74.5	74.5	72.1	69.7
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	307.9	426.4	485.7	425.6	305.6	215.6	207.0
95°	109.0	250.2	391.3	426.6	757.5	1198.8	1419.5	1266.7	961.1	731.9	705.9
97.5°	188.4	312.9	437.5	468.6	1020.5	1756.3	2124.2	2027.6	1834.5	1689.6	1640.2
100°	249.6	362.6	475.6	503.8	1116.2	1932.6	2340.9	2348.0	2362.1	2372.6	2313.8
102.5°	301.8	407.2	512.6	539.0	1160.1	1988.1	2402.2	2525.2	2771.3	2955.9	2905.5
105°	390.3	479.6	568.9	591.2	1192.5	1994.4	2395.3	2671.2	3222.9	3636.7	3609.6
107.5°	481.1	564.3	647.5	668.3	1198.6	1905.7	2259.2	2644.0	3413.6	3990.8	3997.3
110°	542.4	617.6	692.7	711.4	1189.5	1827.0	2145.7	2575.9	3436.2	4081.5	4109.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	602.5	674.1	745.7	763.6	1189.9	1758.2	2042.4	2482.7	3363.2	4023.6	4067.0
115°	693.3	759.4	825.4	842.0	1200.9	1679.5	1918.8	2342.9	3191.1	3827.3	3887.4
117.5°	782.9	843.0	903.0	918.0	1223.2	1630.2	1833.6	2216.4	2982.0	3556.1	3622.8
120°	835.1	891.6	948.1	962.2	1241.4	1613.5	1799.6	2149.4	2848.9	3373.5	3438.2
122.5°	886.2	943.2	1000.1	1014.4	1267.5	1604.9	1773.5	2088.4	2718.4	3190.7	3254.7
125°	964.5	1016.4	1068.4	1081.4	1302.6	1597.6	1745.1	2012.7	2547.7	2949.0	3007.9
127.5°	1028.1	1080.5	1133.0	1146.1	1337.8	1593.5	1721.3	1951.0	2410.4	2755.0	2804.7
130°	1062.1	1118.6	1175.1	1189.2	1363.5	1596.0	1712.2	1916.7	2325.8	2632.5	2678.4
132.5°	1097.3	1153.8	1210.3	1224.4	1384.4	1597.7	1704.3	1887.3	2253.4	2528.1	2569.2
135°	1149.4	1200.9	1252.4	1265.2	1407.0	1596.1	1690.7	1844.0	2150.7	2380.6	2416.0
137.5°	1202.8	1253.8	1304.6	1317.3	1441.0	1606.0	1688.5	1818.1	2077.2	2271.6	2300.7
140°	1247.0	1294.0	1340.8	1352.5	1461.9	1607.6	1680.5	1792.4	2016.4	2184.3	2211.4
142.5°	1281.0	1324.4	1367.8	1378.6	1479.3	1613.4	1680.5	1778.8	1975.5	2123.0	2146.3
145°	1333.3	1371.1	1408.9	1418.4	1502.0	1613.4	1669.1	1749.5	1910.4	2031.1	2048.8
147.5°	1385.5	1422.3	1459.1	1468.3	1535.3	1624.5	1669.1	1732.4	1858.9	1953.9	1968.5
150°	1419.5	1452.8	1486.1	1494.4	1552.6	1630.3	1669.1	1722.6	1829.5	1909.7	1921.5
152.5°	1454.7	1479.9	1505.2	1511.5	1564.0	1634.1	1669.1	1714.8	1806.0	1874.5	1883.4
155°	1506.9	1525.6	1544.2	1548.8	1589.0	1642.3	1669.1	1705.4	1778.1	1832.6	1838.5
157.5°	1545.5	1563.7	1581.8	1586.3	1613.9	1650.7	1669.1	1697.4	1753.9	1796.3	1800.4
160°	1571.6	1585.7	1599.8	1603.3	1625.2	1654.4	1669.1	1693.3	1741.8	1778.1	1780.4
162.5°	1597.7	1608.2	1618.9	1621.5	1637.3	1658.5	1669.1	1689.6	1730.4	1761.1	1763.3
165°	1626.0	1635.5	1645.2	1647.5	1654.7	1664.3	1669.1	1683.7	1713.0	1735.0	1737.3
167.5°	1652.1	1656.6	1661.2	1662.4	1668.4	1676.5	1680.5	1690.0	1709.2	1723.6	1724.6
170°	1669.1	1673.6	1678.2	1679.4	1679.7	1680.2	1680.5	1690.0	1709.2	1723.6	1723.6
172.5°	1678.2	1679.2	1680.2	1680.5	1680.5	1680.5	1680.5	1688.0	1703.1	1714.5	1713.6
175°	1690.7	1690.7	1690.7	1690.7	1687.3	1682.7	1680.5	1685.3	1694.8	1702.0	1702.0
177.5°	1690.7	1690.7	1690.7	1690.7	1688.0	1684.5	1682.7	1686.6	1694.1	1699.7	1698.7
180°	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	747.6	747.6
2.5°	798.1	793.3
5°	1026.4	1031.3
7.5°	1382.2	1379.8
10°	1718.8	1740.4
12.5°	1964.0	1968.8
15°	2113.0	2122.6
17.5°	2170.7	2173.1
20°	2173.1	2168.3
22.5°	2146.7	2141.8
25°	2115.5	2113.0
27.5°	2086.5	2089.0
30°	2074.5	2081.8
32.5°	2074.5	2086.5
35°	2079.3	2091.3
37.5°	2077.0	2091.3
40°	2067.3	2084.2
42.5°	2040.9	2052.9
45°	2000.0	2014.5
47.5°	1947.2	1956.7
50°	1879.9	1889.4
52.5°	1795.7	1798.1
55°	1694.7	1704.4
57.5°	1586.6	1589.0
60°	1466.3	1473.6
62.5°	1339.0	1339.0
65°	1204.4	1209.2
67.5°	1064.9	1076.9
70°	923.1	925.5
72.5°	783.7	783.7
75°	639.5	641.8
77.5°	502.4	502.4
80°	372.6	375.0
82.5°	257.2	262.1
85°	161.1	161.1
87.5°	74.5	67.3
90°	43.1	43.1
92.5°	172.7	138.4
95°	602.0	498.1
97.5°	1442.4	1244.7
100°	2078.2	1842.7
102.5°	2703.7	2502.0
105°	3501.2	3392.8
107.5°	4023.5	4049.7
110°	4222.7	4335.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4240.5	4413.9
115°	4128.0	4368.5
117.5°	3889.6	4156.4
120°	3697.5	3956.6
122.5°	3510.4	3766.1
125°	3243.5	3479.0
127.5°	3003.4	3202.1
130°	2862.0	3045.6
132.5°	2733.6	2898.0
135°	2557.7	2699.4
137.5°	2416.6	2532.6
140°	2319.8	2428.3
142.5°	2239.6	2332.9
145°	2119.4	2190.0
147.5°	2027.0	2085.5
150°	1969.0	2016.4
152.5°	1919.2	1955.1
155°	1862.2	1885.9
157.5°	1817.0	1833.6
160°	1790.1	1799.6
162.5°	1772.3	1781.4
165°	1747.0	1756.5
167.5°	1728.7	1732.7
170°	1723.6	1723.6
172.5°	1710.1	1706.6
175°	1702.0	1702.0
177.5°	1694.7	1690.7
180°	1690.7	1690.7



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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	3.72	4.48	4.79	5.56	7.03	16.90	17.66	17.97	18.74	20.21
	3H	4.42	5.10	5.50	6.19	7.68	18.73	19.41	19.81	20.50	21.99
	4H	4.71	5.36	5.80	6.45	7.95	19.37	20.02	20.46	21.11	22.60
	6H	4.96	5.55	6.06	6.65	8.15	19.79	20.39	20.90	21.48	22.99
	8H	5.02	5.59	6.13	6.70	8.20	19.91	20.48	21.02	21.59	23.09
	12H	5.03	5.58	6.15	6.68	8.20	19.98	20.52	21.09	21.62	23.15
4H	2H	10.92	11.57	12.02	12.66	14.16	17.16	17.81	18.26	18.90	20.39
	3H	12.48	13.02	13.59	14.14	15.65	19.20	19.74	20.30	20.85	22.36
	4H	12.57	13.07	13.68	14.17	15.70	19.96	20.46	21.07	21.56	23.09
	6H	12.58	13.00	13.69	14.13	15.65	20.49	20.92	21.61	22.05	23.57
	8H	12.55	12.95	13.67	14.07	15.61	20.65	21.05	21.77	22.17	23.71
	12H	12.50	12.86	13.64	14.00	15.54	20.74	21.10	21.88	22.23	23.78
8H	4H	14.01	14.41	15.13	15.53	17.07	20.01	20.41	21.13	21.53	23.07
	6H	14.24	14.58	15.38	15.74	17.27	20.63	20.97	21.78	22.13	23.66
	8H	14.26	14.55	15.41	15.69	17.25	20.85	21.14	22.00	22.28	23.84
	12H	14.22	14.48	15.38	15.62	17.21	20.99	21.25	22.14	22.39	23.98
12H	4H	14.14	14.51	15.28	15.64	17.18	19.96	20.32	21.09	21.45	23.00
	6H	14.50	14.79	15.65	15.93	17.49	20.62	20.91	21.76	22.05	23.60
	8H	14.57	14.82	15.72	15.96	17.55	20.84	21.10	21.99	22.24	23.83