

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: P938467

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938467
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-93050-1D-UNV-STD-W-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

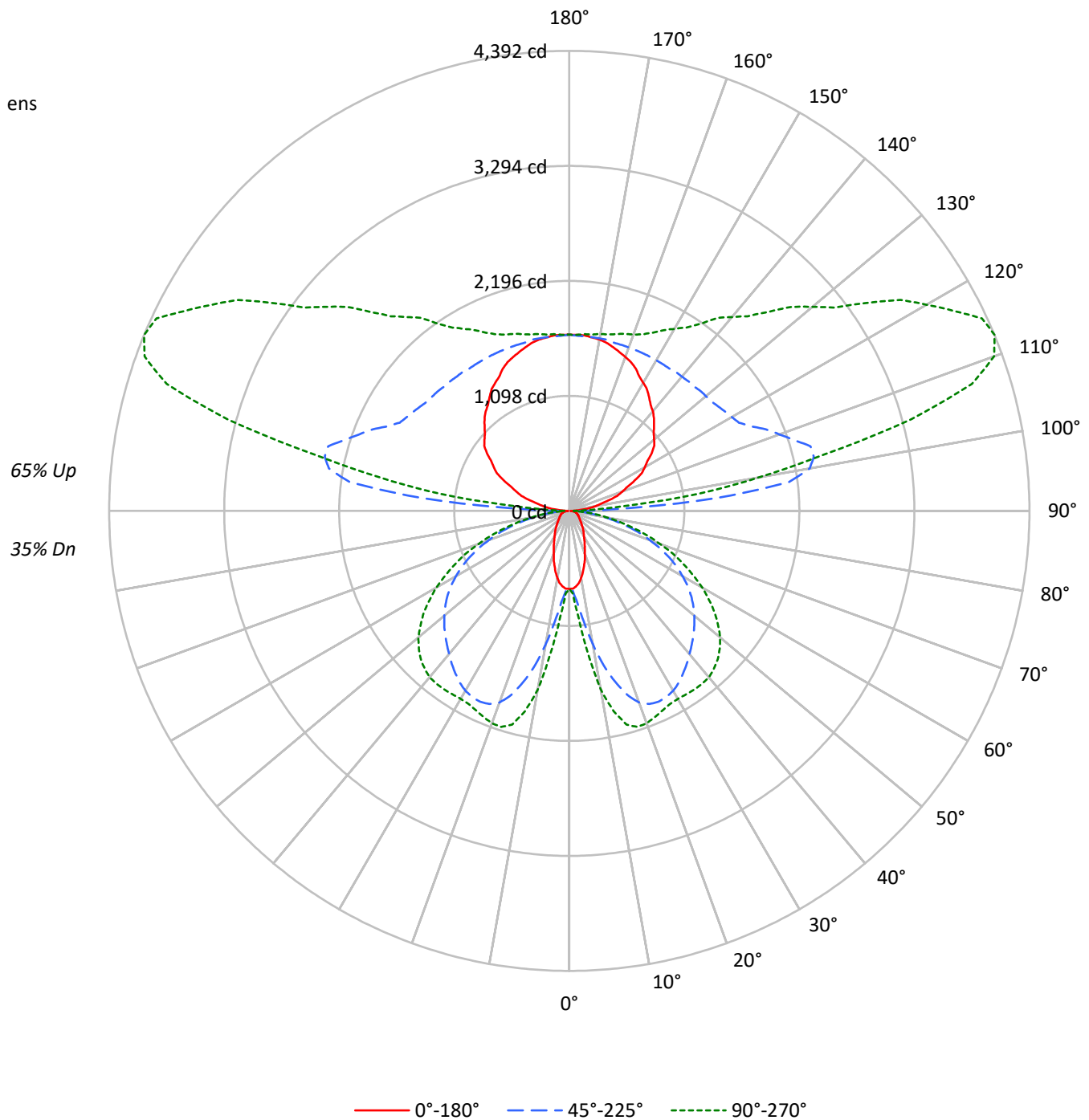
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16667.6 lumens
Efficiency: N/A
Efficacy: 115.1 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 (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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3452	3452	3452
5°	3372	3989	4639
10°	3058	5815	7691
15°	2599	7597	9287
20°	2116	8804	9465
25°	1766	9213	9273
30°	1489	9271	9256
35°	1316	9117	9495
40°	1147	8917	9742
45°	1039	8771	9780
50°	953	8639	9618
55°	912	8445	9192
60°	934	8075	8519
65°	972	7511	7594
70°	1035	6550	6415
75°	1148	5341	5006
80°	1252	3704	3374
85°	1113	1966	1727

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9780 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.2	0.6
10°-20°	426.5	2.6
20°-30°	746.0	4.5
30°-40°	960.3	5.8
40°-50°	1072.7	6.4
50°-60°	1027.4	6.2
60°-70°	814.2	4.9
70°-80°	478.8	2.9
80°-90°	139.4	0.8
90°-100°	820.1	4.9
100°-110°	2156.0	12.9
110°-120°	2235.6	13.4
120°-130°	1793.2	10.8
130°-140°	1407.0	8.4
140°-150°	1079.9	6.5
150°-160°	777.7	4.7
160°-170°	475.9	2.9
170°-180°	160.8	1.0
0°-30°	1268.7	7.6
0°-40°	2229.1	13.4
0°-60°	4329.1	26.0
0°-90°	5761.4	34.6
90°-120°	5211.7	31.3
90°-150°	9491.8	56.9
90°-180°	10906.0	65.4
0°-180°	16667.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	725	777	876	990	1026	67
15°	543	1002	1689	2048	2112	151
25°	347	1136	2012	2100	2103	160
35°	234	1086	1894	2002	2081	146
45°	160	866	1674	1918	2005	124
55°	115	550	1421	1650	1696	105
65°	91	292	1055	1186	1203	90
75°	67	179	579	636	639	70
85°	24	55	144	158	160	25
90°	11	32	86	43	43	11
95°	108	424	1412	728	496	120
105°	388	588	2384	3619	3376	412
115°	690	838	1909	3808	4347	681
125°	960	1076	1737	2934	3462	852
135°	1144	1259	1682	2369	2686	885
145°	1327	1411	1661	2021	2179	831
155°	1500	1541	1661	1824	1877	689
165°	1618	1639	1661	1726	1748	457
175°	1682	1682	1672	1694	1694	160
180°	1682	1682	1682	1682	1682	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
2.5°	744.0	744.0	748.7	751.1	755.9	758.3	763.1	767.8	782.2	784.6	789.4
5°	724.8	734.4	765.5	777.4	810.9	856.4	875.5	906.6	971.1	990.3	1002.3
7.5°	696.1	717.6	794.2	813.3	897.0	1016.6	1066.8	1133.8	1236.7	1287.0	1327.6
10°	650.6	696.1	832.5	877.9	1014.2	1196.0	1289.3	1382.6	1538.0	1607.5	1633.7
12.5°	600.4	674.5	873.1	935.3	1131.5	1396.9	1509.4	1612.3	1789.2	1882.6	1896.9
15°	543.0	643.5	911.4	1002.3	1255.8	1564.4	1688.8	1815.6	1980.6	2047.6	2064.3
17.5°	492.8	619.6	947.3	1042.9	1351.5	1715.1	1841.9	1947.1	2081.1	2126.5	2138.5
20°	430.6	581.3	971.1	1095.5	1452.0	1825.2	1947.1	2028.5	2119.3	2148.0	2152.8
22.5°	385.1	540.6	985.5	1114.7	1519.0	1892.1	1995.0	2059.5	2121.8	2131.3	2133.7
25°	346.9	495.1	983.1	1136.2	1576.3	1932.8	2011.7	2059.5	2095.4	2100.2	2100.2
27.5°	310.9	444.9	973.6	1141.0	1619.4	1942.4	2004.6	2038.1	2054.8	2064.3	2064.3
30°	279.9	397.1	949.6	1131.5	1638.5	1932.8	1983.0	1999.8	2016.5	2030.8	2038.1
32.5°	256.0	351.7	913.8	1112.3	1641.0	1908.9	1944.7	1954.3	1978.2	2011.7	2023.7
35°	234.4	306.2	873.1	1086.0	1626.6	1870.6	1894.5	1904.1	1951.9	2002.1	2018.9
37.5°	212.9	272.7	820.4	1040.6	1605.0	1825.2	1841.9	1858.7	1932.8	1992.5	2011.7
40°	191.4	244.0	758.3	990.3	1571.5	1770.1	1784.4	1810.8	1908.9	1978.2	1997.3
42.5°	174.6	220.0	691.3	937.7	1528.5	1707.9	1729.5	1767.7	1880.1	1954.3	1975.9
45°	160.3	196.1	619.6	865.9	1473.5	1643.3	1674.5	1727.0	1846.6	1918.4	1937.6
47.5°	145.9	179.4	545.4	791.7	1413.7	1578.8	1619.4	1679.3	1801.2	1870.6	1887.4
50°	134.0	162.7	471.2	712.8	1349.1	1509.4	1557.2	1619.4	1743.8	1808.4	1829.9
52.5°	124.4	148.3	401.9	633.9	1274.9	1437.6	1492.6	1557.2	1674.5	1736.6	1750.9
55°	114.8	136.3	342.1	550.2	1198.4	1361.1	1420.8	1483.1	1597.9	1650.5	1660.1
57.5°	110.1	126.8	291.8	471.2	1117.1	1274.9	1341.9	1399.4	1507.0	1547.6	1557.2
60°	102.8	119.6	253.5	404.2	1028.6	1193.6	1251.0	1308.4	1399.4	1432.9	1440.0
62.5°	95.7	114.8	224.8	339.7	937.7	1098.0	1155.3	1208.0	1284.5	1308.4	1318.0
65°	90.9	110.1	203.3	291.8	844.4	997.5	1054.9	1100.3	1162.5	1186.5	1191.3
67.5°	86.1	105.3	186.6	251.2	751.1	897.0	940.1	983.1	1031.0	1054.9	1057.3
70°	78.9	100.5	172.3	222.5	655.4	782.2	818.1	863.5	901.8	913.8	920.9
72.5°	74.1	93.3	162.7	200.9	557.3	672.2	705.7	732.0	765.5	777.4	777.4
75°	67.0	83.7	153.1	179.4	456.9	550.2	578.9	605.2	631.5	636.3	629.1
77.5°	59.8	74.1	131.5	150.7	356.5	435.4	459.3	473.6	495.1	499.9	502.4
80°	50.2	64.6	102.8	117.2	258.3	320.5	337.3	349.2	368.4	368.4	373.2
82.5°	38.3	50.2	74.1	83.7	174.6	220.0	234.4	241.6	253.5	253.5	253.5
85°	23.9	31.1	47.9	55.0	105.3	134.0	143.6	145.9	155.5	157.9	157.9
87.5°	11.9	16.7	31.1	33.5	55.0	69.3	69.3	74.1	74.1	71.8	69.3
90°	11.3	20.4	29.3	31.6	49.7	73.8	85.8	76.3	57.2	42.9	42.9
92.5°	45.2	121.9	198.8	218.0	306.4	424.3	483.3	423.5	304.1	214.5	206.0
95°	108.4	248.9	389.4	424.5	753.8	1192.9	1412.5	1260.4	956.4	728.3	702.4
97.5°	187.5	311.4	435.4	466.3	1015.5	1747.7	2113.7	2017.6	1825.4	1681.2	1632.1
100°	248.4	360.8	473.2	501.4	1110.7	1923.1	2329.3	2336.4	2350.4	2360.9	2302.4
102.5°	300.3	405.2	510.1	536.3	1154.4	1978.3	2390.3	2512.8	2757.7	2941.3	2891.2
105°	388.4	477.2	566.1	588.3	1186.7	1984.6	2383.6	2658.1	3207.1	3618.8	3591.9
107.5°	478.7	561.6	644.3	665.0	1192.7	1896.3	2248.1	2630.9	3396.8	3971.1	3977.6
110°	539.7	614.5	689.3	707.9	1183.7	1818.0	2135.2	2563.2	3419.3	4061.5	4089.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	599.6	670.8	742.1	759.9	1184.0	1749.6	2032.4	2470.5	3346.7	4003.8	4047.0
115°	689.9	755.6	821.3	837.8	1195.0	1671.2	1909.3	2331.3	3175.4	3808.5	3868.3
117.5°	779.1	838.8	898.6	913.5	1217.2	1622.1	1824.6	2205.5	2967.3	3538.6	3605.0
120°	831.0	887.2	943.4	957.5	1235.3	1605.6	1790.8	2138.8	2834.9	3356.9	3421.3
122.5°	881.8	938.6	995.2	1009.4	1261.3	1597.0	1764.8	2078.2	2705.0	3175.0	3238.7
125°	959.7	1011.4	1063.1	1076.1	1296.2	1589.7	1736.6	2002.8	2535.2	2934.5	2993.1
127.5°	1023.0	1075.2	1127.4	1140.4	1331.2	1585.7	1712.8	1941.4	2398.6	2741.5	2790.9
130°	1056.9	1113.1	1169.3	1183.3	1356.8	1588.1	1703.8	1907.3	2314.3	2619.5	2665.2
132.5°	1091.9	1148.1	1204.3	1218.3	1377.6	1589.8	1695.9	1878.0	2242.4	2515.6	2556.5
135°	1143.8	1195.0	1246.2	1259.0	1400.1	1588.3	1682.3	1834.9	2140.1	2368.9	2404.1
137.5°	1196.9	1247.6	1298.2	1310.9	1434.0	1598.1	1680.2	1809.1	2067.0	2260.5	2289.3
140°	1240.9	1287.6	1334.2	1345.9	1454.7	1599.7	1672.2	1783.6	2006.5	2173.6	2200.5
142.5°	1274.7	1317.9	1361.1	1371.9	1472.0	1605.5	1672.2	1770.0	1965.7	2112.6	2135.7
145°	1326.7	1364.3	1402.0	1411.4	1494.6	1605.5	1660.9	1740.9	1901.0	2021.1	2038.7
147.5°	1378.7	1415.3	1452.0	1461.1	1527.7	1616.5	1660.9	1723.9	1849.8	1944.3	1958.9
150°	1412.5	1445.6	1478.8	1487.0	1544.9	1622.2	1660.9	1714.1	1820.5	1900.3	1912.1
152.5°	1447.5	1472.6	1497.8	1504.0	1556.3	1626.0	1660.9	1706.3	1797.1	1865.3	1874.1
155°	1499.5	1518.0	1536.6	1541.2	1581.1	1634.3	1660.9	1697.0	1769.3	1823.5	1829.4
157.5°	1537.9	1556.0	1574.0	1578.5	1605.9	1642.6	1660.9	1689.0	1745.2	1787.4	1791.6
160°	1563.8	1577.9	1591.9	1595.4	1617.3	1646.3	1660.9	1685.0	1733.2	1769.3	1771.7
162.5°	1589.8	1600.3	1610.9	1613.5	1629.3	1650.4	1660.9	1681.2	1721.9	1752.4	1754.7
165°	1618.0	1627.5	1637.1	1639.4	1646.6	1656.1	1660.9	1675.5	1704.6	1726.4	1728.8
167.5°	1644.0	1648.5	1653.0	1654.2	1660.2	1668.2	1672.2	1681.7	1700.8	1715.1	1716.1
170°	1660.9	1665.4	1669.9	1671.1	1671.5	1671.9	1672.2	1681.7	1700.8	1715.1	1715.1
172.5°	1669.9	1670.9	1671.9	1672.2	1672.2	1672.2	1672.2	1679.7	1694.7	1706.0	1705.1
175°	1682.3	1682.3	1682.3	1682.3	1679.0	1674.5	1672.2	1677.0	1686.5	1693.6	1693.6
177.5°	1682.3	1682.3	1682.3	1682.3	1679.7	1676.2	1674.5	1678.3	1685.8	1691.4	1690.4
180°	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	744.0	744.0
2.5°	794.2	789.4
5°	1021.4	1026.2
7.5°	1375.4	1373.0
10°	1710.3	1731.8
12.5°	1954.3	1959.1
15°	2102.6	2112.2
17.5°	2160.0	2162.4
20°	2162.4	2157.6
22.5°	2136.1	2131.3
25°	2105.0	2102.6
27.5°	2076.3	2078.7
30°	2064.3	2071.6
32.5°	2064.3	2076.3
35°	2069.1	2081.1
37.5°	2066.8	2081.1
40°	2057.2	2073.9
42.5°	2030.8	2042.8
45°	1990.2	2004.6
47.5°	1937.6	1947.1
50°	1870.6	1880.1
52.5°	1786.9	1789.2
55°	1686.4	1696.0
57.5°	1578.8	1581.1
60°	1459.1	1466.4
62.5°	1332.4	1332.4
65°	1198.4	1203.2
67.5°	1059.7	1071.6
70°	918.6	920.9
72.5°	779.8	779.8
75°	636.3	638.7
77.5°	499.9	499.9
80°	370.8	373.2
82.5°	256.0	260.8
85°	160.3	160.3
87.5°	74.1	67.0
90°	42.9	42.9
92.5°	171.9	137.8
95°	599.0	495.7
97.5°	1435.3	1238.6
100°	2068.0	1833.7
102.5°	2690.4	2489.7
105°	3484.0	3376.1
107.5°	4003.7	4029.8
110°	4201.9	4314.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4219.6	4392.2
115°	4107.7	4347.0
117.5°	3870.5	4136.0
120°	3679.3	3937.2
122.5°	3493.1	3747.5
125°	3227.5	3461.9
127.5°	2988.7	3186.3
130°	2847.9	3030.6
132.5°	2720.1	2883.8
135°	2545.1	2686.2
137.5°	2404.7	2520.1
140°	2308.4	2416.3
142.5°	2228.6	2321.5
145°	2108.9	2179.2
147.5°	2017.1	2075.3
150°	1959.3	2006.5
152.5°	1909.8	1945.5
155°	1853.0	1876.6
157.5°	1808.1	1824.6
160°	1781.3	1790.8
162.5°	1763.6	1772.7
165°	1738.4	1747.9
167.5°	1720.2	1724.2
170°	1715.1	1715.1
172.5°	1701.7	1698.2
175°	1693.6	1693.6
177.5°	1686.3	1682.3
180°	1682.3	1682.3



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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	3.70	4.46	4.77	5.54	7.01	16.88	17.64	17.95	18.72	20.19
	3H	4.40	5.08	5.48	6.17	7.66	18.71	19.40	19.79	20.48	21.97
	4H	4.69	5.34	5.79	6.43	7.93	19.35	20.00	20.45	21.09	22.59
	6H	4.94	5.54	6.04	6.63	8.14	19.78	20.38	20.88	21.47	22.98
	8H	5.00	5.57	6.11	6.68	8.18	19.90	20.47	21.00	21.57	23.08
	12H	5.02	5.56	6.13	6.66	8.19	19.96	20.50	21.07	21.60	23.13
4H	2H	10.90	11.55	12.00	12.64	14.14	17.14	17.79	18.24	18.88	20.38
	3H	12.46	13.01	13.57	14.12	15.63	19.18	19.72	20.29	20.84	22.35
	4H	12.55	13.05	13.66	14.16	15.69	19.94	20.44	21.05	21.54	23.08
	6H	12.56	12.99	13.68	14.11	15.64	20.47	20.90	21.59	22.03	23.55
	8H	12.53	12.93	13.65	14.05	15.59	20.63	21.03	21.75	22.15	23.69
	12H	12.48	12.85	13.62	13.98	15.52	20.72	21.09	21.86	22.22	23.76
8H	4H	13.99	14.39	15.11	15.51	17.05	19.99	20.39	21.11	21.51	23.05
	6H	14.23	14.56	15.37	15.72	17.26	20.62	20.95	21.76	22.11	23.65
	8H	14.24	14.53	15.39	15.68	17.23	20.84	21.13	21.98	22.27	23.82
	12H	14.21	14.46	15.36	15.60	17.19	20.98	21.23	22.13	22.37	23.96
12H	4H	14.13	14.49	15.26	15.62	17.17	19.94	20.30	21.08	21.44	22.98
	6H	14.48	14.77	15.63	15.92	17.47	20.60	20.89	21.75	22.03	23.59
	8H	14.55	14.80	15.70	15.94	17.53	20.82	21.08	21.98	22.22	23.81