

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: P938393

Luminaire Tested: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938393
REPORT IS A COMBINATION OF REPORTS P933646 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

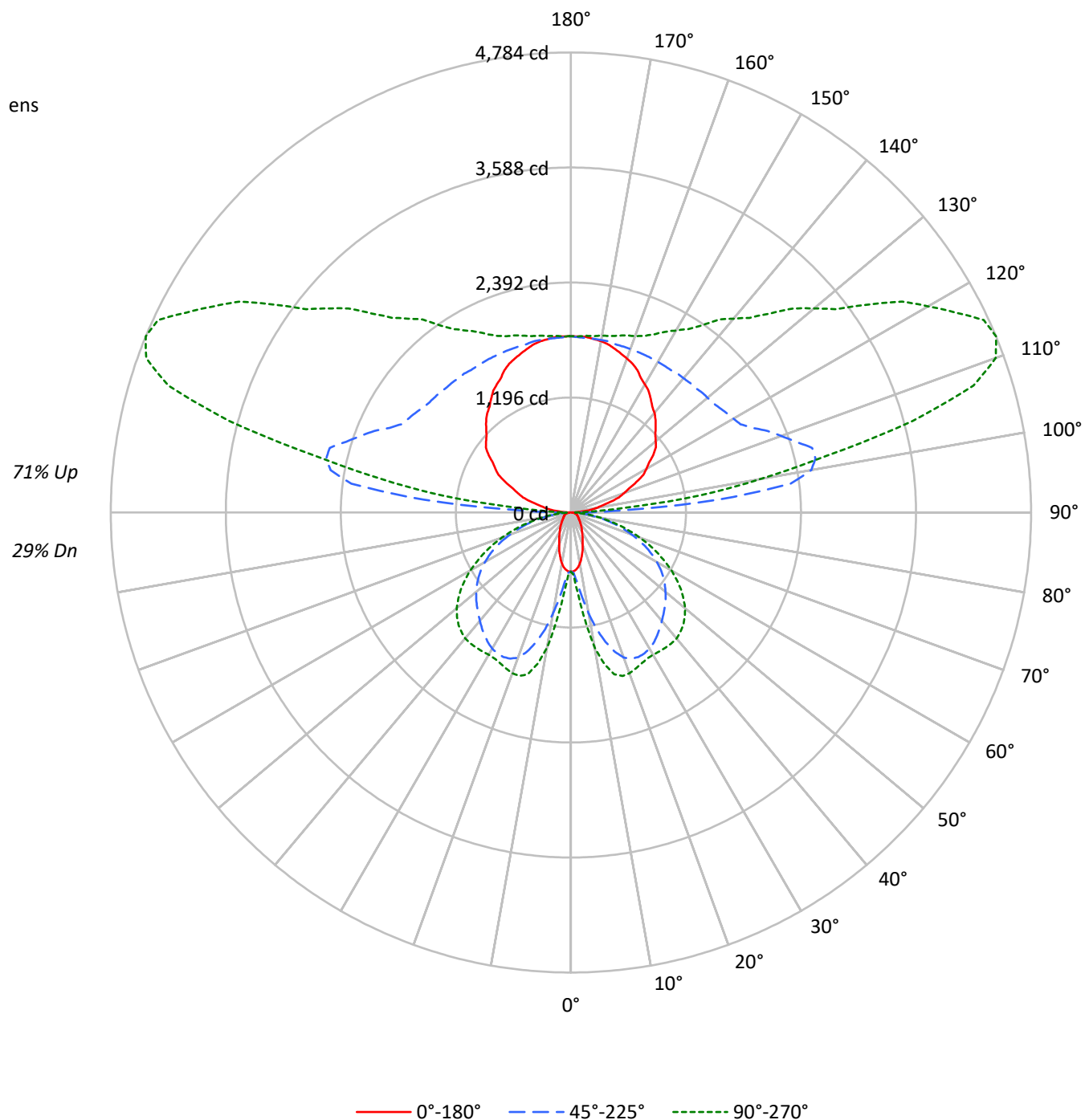
Lumens per Lamp: N/A
Luminaire Lumens: 16631.8 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 127.2
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

TEST NUMBER: P938393

CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-3000K

Luminous Intensity Polar Plot



TEST NUMBER: P938393

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2845	2845	2845
5°	2780	3289	3825
10°	2522	4794	6341
15°	2143	6264	7657
20°	1745	7258	7803
25°	1455	7596	7645
30°	1227	7644	7631
35°	1085	7517	7828
40°	946	7352	8032
45°	856	7231	8063
50°	785	7122	7930
55°	753	6963	7578
60°	770	6657	7023
65°	801	6192	6260
70°	854	5400	5288
75°	945	4403	4127
80°	1033	3054	2781
85°	918	1620	1423

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8063 cd/sqm

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CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.3	0.5
10°-20°	351.6	2.1
20°-30°	615.0	3.7
30°-40°	791.7	4.8
40°-50°	884.3	5.3
50°-60°	847.0	5.1
60°-70°	671.2	4.0
70°-80°	394.7	2.4
80°-90°	116.6	0.7
90°-100°	893.3	5.4
100°-110°	2348.6	14.1
110°-120°	2435.2	14.6
120°-130°	1953.3	11.7
130°-140°	1532.7	9.2
140°-150°	1176.4	7.1
150°-160°	847.2	5.1
160°-170°	518.4	3.1
170°-180°	175.1	1.1
0°-30°	1046.0	6.3
0°-40°	1837.7	11.0
0°-60°	3569.1	21.5
0°-90°	4751.6	28.6
90°-120°	5677.1	34.1
90°-150°	10339.5	62.2
90°-180°	11880.0	71.4
0°-180°	16631.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	613	613	613	613	613	
5°	598	641	722	816	846	55
15°	448	826	1392	1688	1741	125
25°	286	937	1659	1732	1734	132
35°	193	895	1562	1651	1716	121
45°	132	714	1380	1582	1653	102
55°	95	454	1172	1361	1398	86
65°	75	241	870	978	992	74
75°	55	148	477	525	526	58
85°	20	45	118	130	132	21
90°	12	34	94	47	47	11
95°	118	462	1539	793	540	131
105°	423	641	2596	3942	3678	449
115°	752	913	2080	4149	4735	742
125°	1046	1172	1892	3197	3771	928
135°	1246	1371	1833	2580	2926	964
145°	1445	1538	1809	2202	2374	905
155°	1633	1679	1809	1986	2044	751
165°	1762	1786	1809	1881	1904	497
175°	1833	1833	1822	1845	1845	174
180°	1833	1833	1833	1833	1833	

TEST NUMBER: P938393

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	613.3	613.3	613.3	613.3	613.3	613.3	613.3	613.3	613.3	613.3	613.3
2.5°	613.3	613.3	617.2	619.2	623.2	625.1	629.1	633.0	644.8	646.8	650.8
5°	597.5	605.4	631.0	640.9	668.5	706.0	721.8	747.4	800.6	816.4	826.3
7.5°	573.9	591.6	654.7	670.5	739.5	838.1	879.5	934.7	1019.5	1060.9	1094.5
10°	536.4	573.9	686.3	723.7	836.1	986.0	1062.9	1139.9	1268.1	1325.3	1347.0
12.5°	495.0	556.1	719.8	771.1	932.8	1151.7	1244.4	1329.2	1475.2	1552.1	1563.9
15°	447.6	530.5	751.3	826.3	1035.3	1289.8	1392.3	1496.8	1632.9	1688.1	1701.9
17.5°	406.2	510.7	780.9	859.8	1114.2	1414.0	1518.5	1605.3	1715.7	1753.2	1763.1
20°	355.0	479.2	800.6	903.2	1197.1	1504.7	1605.3	1672.4	1747.3	1771.0	1774.9
22.5°	317.5	445.7	812.5	919.0	1252.3	1560.0	1644.7	1698.0	1749.3	1757.2	1759.1
25°	285.9	408.2	810.5	936.7	1299.6	1593.5	1658.6	1698.0	1727.6	1731.5	1731.5
27.5°	256.4	366.8	802.6	940.6	1335.1	1601.4	1652.6	1680.2	1694.0	1701.9	1701.9
30°	230.7	327.4	782.9	932.8	1350.9	1593.5	1634.9	1648.7	1662.5	1674.3	1680.2
32.5°	211.0	289.9	753.3	917.0	1352.9	1573.8	1603.3	1611.2	1630.9	1658.6	1668.4
35°	193.3	252.4	719.8	895.3	1341.1	1542.2	1561.9	1569.8	1609.3	1650.7	1664.5
37.5°	175.5	224.8	676.4	857.8	1323.3	1504.7	1518.5	1532.3	1593.5	1642.8	1658.6
40°	157.8	201.1	625.1	816.4	1295.7	1459.4	1471.2	1492.9	1573.8	1630.9	1646.7
42.5°	144.0	181.4	569.9	773.0	1260.2	1408.1	1425.9	1457.4	1550.1	1611.2	1629.0
45°	132.1	161.7	510.7	713.9	1214.9	1354.9	1380.5	1423.9	1522.5	1581.6	1597.4
47.5°	120.3	147.9	449.6	652.7	1165.6	1301.6	1335.1	1384.4	1485.0	1542.2	1556.0
50°	110.4	134.1	388.5	587.7	1112.2	1244.4	1283.9	1335.1	1437.7	1490.9	1508.7
52.5°	102.5	122.3	331.3	522.6	1051.1	1185.3	1230.6	1283.9	1380.5	1431.8	1443.6
55°	94.7	112.4	282.0	453.6	988.0	1122.2	1171.5	1222.7	1317.4	1360.8	1368.7
57.5°	90.7	104.5	240.6	388.5	920.9	1051.1	1106.3	1153.7	1242.5	1276.0	1283.9
60°	84.8	98.6	209.0	333.3	848.0	984.0	1031.4	1078.7	1153.7	1181.3	1187.2
62.5°	78.9	94.7	185.4	280.0	773.0	905.1	952.5	995.9	1059.0	1078.7	1086.6
65°	74.9	90.7	167.6	240.6	696.1	822.3	869.7	907.1	958.4	978.1	982.1
67.5°	71.0	86.8	153.8	207.1	619.2	739.5	775.0	810.5	849.9	869.7	871.6
70°	65.1	82.8	142.0	183.4	540.3	644.8	674.4	711.9	743.4	753.3	759.2
72.5°	61.1	76.9	134.1	165.6	459.5	554.1	581.7	603.4	631.0	640.9	640.9
75°	55.2	69.0	126.2	147.9	376.7	453.6	477.2	498.9	520.6	524.6	518.6
77.5°	49.3	61.1	108.5	124.2	293.8	358.9	378.6	390.5	408.2	412.1	414.1
80°	41.4	53.2	84.8	96.6	213.0	264.2	278.1	287.9	303.7	303.7	307.6
82.5°	31.6	41.4	61.1	69.0	144.0	181.4	193.3	199.2	209.0	209.0	209.0
85°	19.7	25.6	39.4	45.4	86.8	110.4	118.3	120.3	128.2	130.2	130.2
87.5°	9.9	13.8	25.6	27.6	45.4	57.2	57.2	61.1	61.1	59.2	57.2
90°	12.3	22.2	31.9	34.4	54.1	80.4	93.5	83.1	62.3	46.7	46.7
92.5°	49.2	132.8	216.5	237.4	333.8	462.2	526.4	461.3	331.3	233.7	224.4
95°	118.1	271.2	424.2	462.4	821.1	1299.4	1538.7	1373.0	1041.8	793.3	765.1
97.5°	204.2	339.2	474.3	508.0	1106.2	1903.8	2302.5	2197.8	1988.5	1831.4	1777.9
100°	270.6	393.0	515.5	546.1	1209.9	2094.9	2537.4	2545.1	2560.3	2571.8	2508.0
102.5°	327.2	441.4	555.6	584.2	1257.4	2155.0	2603.8	2737.2	3003.9	3204.0	3149.4
105°	423.1	519.8	616.6	640.8	1292.6	2161.8	2596.4	2895.5	3493.5	3942.0	3912.6
107.5°	521.5	611.7	701.8	724.4	1299.3	2065.7	2448.8	2865.9	3700.2	4325.8	4332.9
110°	588.0	669.4	750.8	771.2	1289.4	1980.4	2325.9	2792.2	3724.7	4424.2	4454.7

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CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	653.1	730.7	808.3	827.7	1289.8	1905.8	2213.9	2691.1	3645.5	4361.4	4408.4
115°	751.5	823.1	894.7	912.6	1301.7	1820.5	2079.9	2539.5	3459.0	4148.6	4213.8
117.5°	848.7	913.7	978.8	995.1	1325.9	1767.0	1987.6	2402.5	3232.3	3854.7	3926.9
120°	905.2	966.5	1027.7	1043.0	1345.6	1749.0	1950.7	2329.8	3088.1	3656.7	3726.9
122.5°	960.6	1022.4	1084.1	1099.6	1373.9	1739.6	1922.4	2263.8	2946.6	3458.6	3527.9
125°	1045.5	1101.8	1158.1	1172.2	1412.0	1731.7	1891.6	2181.6	2761.6	3196.6	3260.4
127.5°	1114.4	1171.2	1228.1	1242.3	1450.1	1727.3	1865.8	2114.8	2612.8	2986.3	3040.1
130°	1151.3	1212.5	1273.7	1289.0	1478.0	1729.9	1855.9	2077.6	2521.0	2853.5	2903.3
132.5°	1189.4	1250.6	1311.9	1327.2	1500.6	1731.8	1847.4	2045.8	2442.6	2740.3	2784.9
135°	1245.9	1301.7	1357.5	1371.4	1525.1	1730.1	1832.6	1998.8	2331.2	2580.5	2618.8
137.5°	1303.8	1359.0	1414.1	1427.9	1562.0	1740.8	1830.2	1970.7	2251.6	2462.3	2493.8
140°	1351.7	1402.6	1453.4	1466.1	1584.6	1742.6	1821.5	1942.9	2185.7	2367.7	2397.1
142.5°	1388.6	1435.6	1482.6	1494.4	1603.4	1748.9	1821.5	1928.1	2141.3	2301.2	2326.5
145°	1445.2	1486.2	1527.2	1537.5	1628.1	1748.9	1809.2	1896.4	2070.8	2201.6	2220.8
147.5°	1501.8	1541.7	1581.6	1591.6	1664.2	1760.9	1809.2	1877.8	2015.0	2117.9	2133.8
150°	1538.7	1574.7	1610.8	1619.8	1682.9	1767.1	1809.2	1867.2	1983.0	2070.0	2082.8
152.5°	1576.8	1604.1	1631.5	1638.3	1695.3	1771.3	1809.2	1858.7	1957.6	2031.9	2041.5
155°	1633.4	1653.6	1673.8	1678.9	1722.3	1780.2	1809.2	1848.6	1927.3	1986.4	1992.8
157.5°	1675.2	1694.9	1714.6	1719.5	1749.4	1789.3	1809.2	1839.9	1901.1	1947.1	1951.6
160°	1703.5	1718.8	1734.1	1737.9	1761.7	1793.3	1809.2	1835.4	1888.0	1927.3	1929.9
162.5°	1731.8	1743.2	1754.8	1757.6	1774.8	1797.8	1809.2	1831.4	1875.7	1908.9	1911.4
165°	1762.5	1772.8	1783.3	1785.8	1793.6	1804.0	1809.2	1825.1	1856.8	1880.6	1883.2
167.5°	1790.8	1795.7	1800.6	1801.9	1808.4	1817.2	1821.5	1831.9	1852.7	1868.3	1869.4
170°	1809.2	1814.1	1819.1	1820.4	1820.7	1821.2	1821.5	1831.9	1852.7	1868.3	1868.3
172.5°	1819.1	1820.2	1821.2	1821.5	1821.5	1821.5	1821.5	1829.7	1846.1	1858.4	1857.4
175°	1832.6	1832.6	1832.6	1832.6	1828.9	1824.0	1821.5	1826.8	1837.1	1844.9	1844.9
177.5°	1832.6	1832.6	1832.6	1832.6	1829.7	1825.9	1824.0	1828.1	1836.3	1842.4	1841.4
180°	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	613.3	613.3
2.5°	654.7	650.8
5°	842.0	846.0
7.5°	1134.0	1132.0
10°	1410.1	1427.8
12.5°	1611.2	1615.2
15°	1733.5	1741.4
17.5°	1780.8	1782.8
20°	1782.8	1778.8
22.5°	1761.1	1757.2
25°	1735.5	1733.5
27.5°	1711.8	1713.8
30°	1701.9	1707.9
32.5°	1701.9	1711.8
35°	1705.9	1715.7
37.5°	1703.9	1715.7
40°	1696.0	1709.8
42.5°	1674.3	1684.2
45°	1640.8	1652.6
47.5°	1597.4	1605.3
50°	1542.2	1550.1
52.5°	1473.2	1475.2
55°	1390.4	1398.2
57.5°	1301.6	1303.6
60°	1203.0	1208.9
62.5°	1098.4	1098.4
65°	988.0	991.9
67.5°	873.6	883.5
70°	757.2	759.2
72.5°	642.9	642.9
75°	524.6	526.5
77.5°	412.1	412.1
80°	305.7	307.6
82.5°	211.0	214.9
85°	132.1	132.1
87.5°	61.1	55.2
90°	46.7	46.7
92.5°	187.2	150.1
95°	652.5	539.9
97.5°	1563.5	1349.2
100°	2252.7	1997.4
102.5°	2930.7	2712.1
105°	3795.1	3677.6
107.5°	4361.3	4389.7
110°	4577.2	4699.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4596.4	4784.5
115°	4474.6	4735.3
117.5°	4216.1	4505.3
120°	4007.9	4288.8
122.5°	3805.1	4082.2
125°	3515.8	3771.1
127.5°	3255.6	3470.9
130°	3102.3	3301.2
132.5°	2963.0	3141.3
135°	2772.4	2926.1
137.5°	2619.5	2745.2
140°	2514.6	2632.1
142.5°	2427.6	2528.8
145°	2297.3	2373.8
147.5°	2197.2	2260.6
150°	2134.3	2185.7
152.5°	2080.4	2119.2
155°	2018.5	2044.2
157.5°	1969.5	1987.6
160°	1940.3	1950.7
162.5°	1921.1	1931.0
165°	1893.6	1904.0
167.5°	1873.8	1878.1
170°	1868.3	1868.3
172.5°	1853.7	1849.8
175°	1844.9	1844.9
177.5°	1836.9	1832.6
180°	1832.6	1832.6

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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	2.25	2.97	3.37	4.08	5.62	15.43	16.14	16.54	17.26	18.80
	3H	2.94	3.59	4.07	4.71	6.27	17.26	17.90	18.38	19.02	20.58
	4H	3.23	3.85	4.37	4.97	6.53	17.89	18.50	19.03	19.63	21.19
	6H	3.48	4.04	4.62	5.16	6.74	18.32	18.88	19.46	20.00	21.58
	8H	3.54	4.08	4.69	5.22	6.79	18.43	18.97	19.58	20.11	21.68
	12H	3.55	4.06	4.70	5.20	6.79	18.50	19.00	19.65	20.14	21.73
4H	2H	9.45	10.06	10.59	11.18	12.75	15.68	16.29	16.83	17.42	18.98
	3H	11.00	11.51	12.15	12.66	14.24	17.72	18.23	18.86	19.38	20.95
	4H	11.09	11.56	12.24	12.70	14.29	18.48	18.95	19.63	20.08	21.68
	6H	11.09	11.49	12.25	12.65	14.24	19.01	19.41	20.16	20.57	22.16
	8H	11.06	11.44	12.22	12.59	14.20	19.17	19.54	20.32	20.69	22.30
	12H	11.01	11.35	12.19	12.52	14.13	19.25	19.59	20.42	20.76	22.37
8H	4H	12.52	12.90	13.68	14.05	15.66	18.52	18.90	19.68	20.05	21.66
	6H	12.76	13.07	13.93	14.26	15.86	19.15	19.46	20.32	20.65	22.25
	8H	12.77	13.04	13.95	14.22	15.84	19.36	19.64	20.55	20.81	22.43
	12H	12.73	12.97	13.92	14.14	15.80	19.50	19.74	20.69	20.91	22.57
12H	4H	12.66	13.00	13.83	14.16	15.77	18.47	18.81	19.64	19.97	21.59
	6H	13.01	13.28	14.19	14.46	16.08	19.13	19.40	20.31	20.57	22.20
	8H	13.07	13.31	14.26	14.48	16.14	19.35	19.59	20.54	20.76	22.41