

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: P938447

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938447
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-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

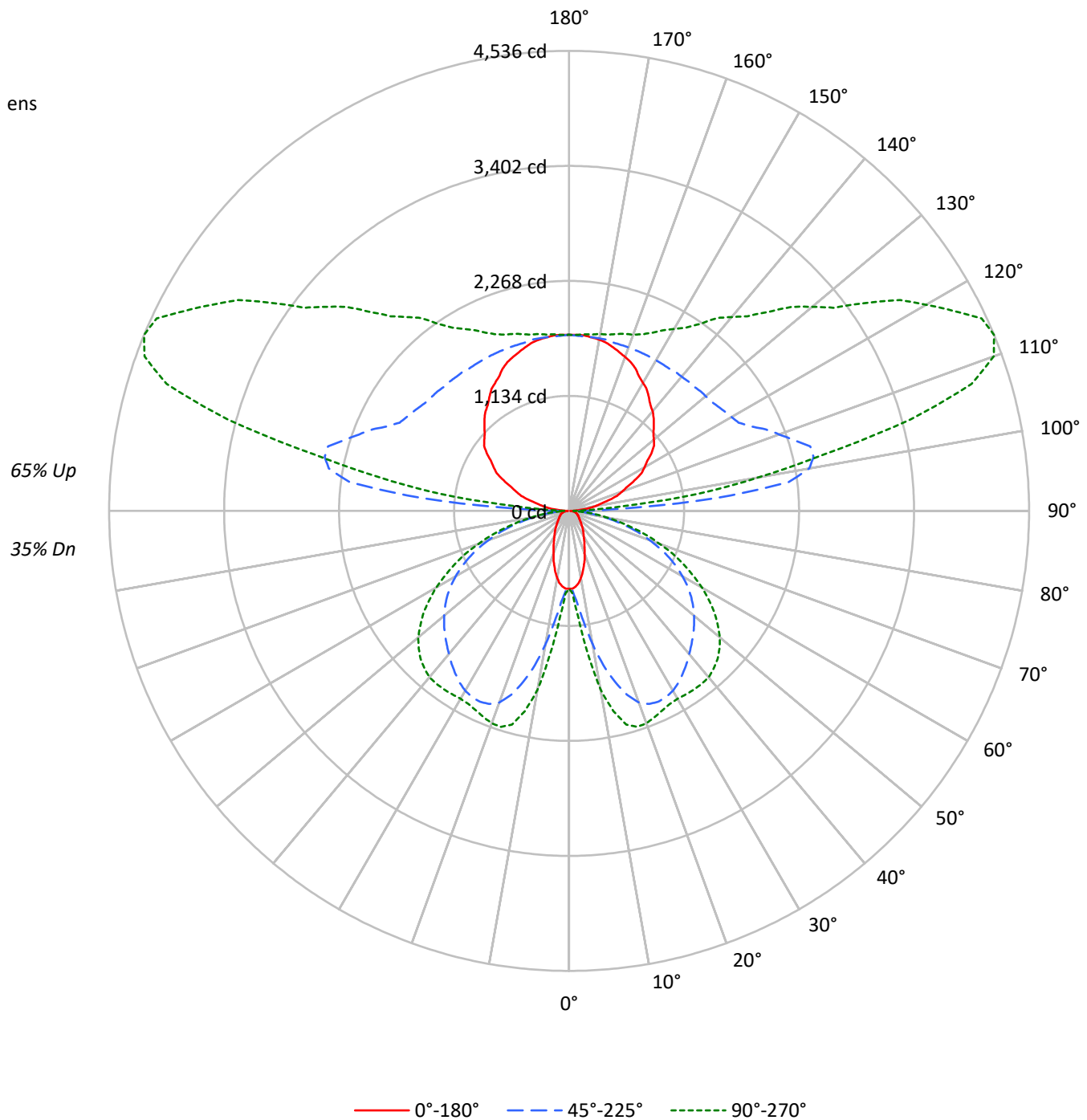
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17211.7 lumens
Efficiency: N/A
Efficacy: 118.9 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

TEST NUMBER: P938447
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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°	3564	3564	3564
5°	3482	4119	4791
10°	3158	6005	7943
15°	2684	7845	9590
20°	2185	9091	9774
25°	1823	9514	9575
30°	1537	9574	9558
35°	1359	9415	9804
40°	1184	9208	10060
45°	1073	9057	10100
50°	984	8921	9932
55°	942	8721	9492
60°	965	8339	8797
65°	1003	7756	7842
70°	1069	6764	6625
75°	1185	5514	5170
80°	1295	3825	3484
85°	1150	2029	1783

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10100 cd/sqm



TEST NUMBER: P938447

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.4	0.6
10°-20°	440.4	2.6
20°-30°	770.4	4.5
30°-40°	991.7	5.8
40°-50°	1107.7	6.4
50°-60°	1060.9	6.2
60°-70°	840.8	4.9
70°-80°	494.4	2.9
80°-90°	144.0	0.8
90°-100°	846.9	4.9
100°-110°	2226.4	12.9
110°-120°	2308.5	13.4
120°-130°	1851.7	10.8
130°-140°	1452.9	8.4
140°-150°	1115.2	6.5
150°-160°	803.1	4.7
160°-170°	491.4	2.9
170°-180°	166.0	1.0
0°-30°	1310.1	7.6
0°-40°	2301.8	13.4
0°-60°	4470.4	26.0
0°-90°	5949.5	34.6
90°-120°	5381.8	31.3
90°-150°	9801.7	56.9
90°-180°	11262.0	65.4
0°-180°	17211.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	748	803	904	1023	1060	69
15°	561	1035	1744	2114	2181	156
25°	358	1173	2077	2169	2171	165
35°	242	1122	1956	2068	2149	151
45°	166	894	1729	1981	2070	128
55°	118	568	1467	1704	1751	108
65°	94	301	1089	1225	1242	93
75°	69	185	598	657	660	72
85°	25	57	148	163	166	26
90°	12	33	89	44	44	11
95°	112	438	1459	752	512	124
105°	401	608	2461	3737	3486	425
115°	712	865	1972	3933	4489	704
125°	991	1111	1793	3030	3575	880
135°	1181	1300	1737	2446	2774	914
145°	1370	1458	1715	2087	2250	858
155°	1548	1592	1715	1883	1938	711
165°	1671	1693	1715	1783	1805	472
175°	1737	1737	1727	1749	1749	165
180°	1737	1737	1737	1737	1737	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2
2.5°	768.2	768.2	773.2	775.6	780.6	783.0	788.0	792.9	807.8	810.2	815.2
5°	748.4	758.3	790.5	802.8	837.4	884.3	904.0	936.2	1002.8	1022.7	1035.0
7.5°	718.8	741.0	820.1	839.8	926.3	1049.8	1101.6	1170.8	1277.1	1329.0	1370.9
10°	671.9	718.8	859.6	906.6	1047.3	1235.0	1331.4	1427.8	1588.3	1659.9	1687.1
12.5°	620.0	696.5	901.6	965.8	1168.4	1442.5	1558.6	1664.9	1847.6	1944.0	1958.8
15°	560.7	664.5	941.2	1035.0	1296.8	1615.5	1743.9	1874.8	2045.2	2114.4	2131.7
17.5°	508.9	639.8	978.2	1077.0	1395.6	1771.1	1902.0	2010.6	2149.0	2195.9	2208.3
20°	444.6	600.3	1002.8	1131.3	1499.4	1884.7	2010.6	2094.7	2188.5	2218.2	2223.1
22.5°	397.7	558.2	1017.7	1151.1	1568.5	1953.9	2060.1	2126.7	2191.0	2200.9	2203.4
25°	358.2	511.3	1015.2	1173.3	1627.8	1995.9	2077.4	2126.7	2163.8	2168.8	2168.8
27.5°	321.1	459.4	1005.4	1178.3	1672.3	2005.8	2070.0	2104.6	2121.9	2131.7	2131.7
30°	289.0	410.1	980.6	1168.4	1692.0	1995.9	2047.8	2065.0	2082.3	2097.1	2104.6
32.5°	264.3	363.1	943.6	1148.6	1694.5	1971.2	2008.2	2018.1	2042.8	2077.4	2089.7
35°	242.1	316.2	901.6	1121.5	1679.7	1931.7	1956.3	1966.2	2015.6	2067.5	2084.8
37.5°	219.8	281.6	847.2	1074.5	1657.4	1884.7	1902.0	1919.3	1995.9	2057.6	2077.4
40°	197.6	252.0	783.0	1022.7	1622.8	1827.9	1842.7	1869.9	1971.2	2042.8	2062.5
42.5°	180.3	227.2	713.8	968.3	1578.4	1763.7	1785.9	1825.4	1941.5	2018.1	2040.4
45°	165.5	202.6	639.8	894.1	1521.6	1697.0	1729.1	1783.4	1906.9	1981.0	2000.8
47.5°	150.7	185.3	563.2	817.6	1459.8	1630.3	1672.3	1734.1	1860.0	1931.7	1949.0
50°	138.3	168.0	486.6	736.1	1393.2	1558.6	1608.1	1672.3	1800.7	1867.4	1889.6
52.5°	128.4	153.1	415.0	654.6	1316.5	1484.5	1541.3	1608.1	1729.1	1793.3	1808.1
55°	118.5	140.8	353.2	568.1	1237.6	1405.5	1467.2	1531.5	1650.0	1704.3	1714.3
57.5°	113.7	131.0	301.3	486.6	1153.5	1316.5	1385.7	1445.1	1556.2	1598.2	1608.1
60°	106.2	123.5	261.8	417.4	1062.2	1232.6	1291.9	1351.1	1445.1	1479.6	1487.0
62.5°	98.8	118.5	232.2	350.8	968.3	1133.8	1193.1	1247.5	1326.4	1351.1	1361.0
65°	93.8	113.7	209.9	301.3	872.0	1030.0	1089.3	1136.2	1200.4	1225.2	1230.2
67.5°	88.9	108.7	192.6	259.4	775.6	926.3	970.8	1015.2	1064.6	1089.3	1091.8
70°	81.5	103.8	177.9	229.8	676.8	807.8	844.8	891.7	931.2	943.6	951.0
72.5°	76.6	96.4	168.0	207.5	575.5	694.1	728.7	755.9	790.5	802.8	802.8
75°	69.2	86.5	158.1	185.3	471.8	568.1	597.7	624.9	652.1	657.1	649.6
77.5°	61.8	76.6	135.8	155.6	368.1	449.6	474.3	489.0	511.3	516.2	518.8
80°	51.9	66.7	106.2	121.0	266.8	331.0	348.3	360.6	380.4	380.4	385.4
82.5°	39.5	51.9	76.6	86.5	180.3	227.2	242.1	249.5	261.8	261.8	261.8
85°	24.7	32.2	49.4	56.8	108.7	138.3	148.2	150.7	160.6	163.0	163.0
87.5°	12.3	17.3	32.2	34.6	56.8	71.6	71.6	76.6	76.6	74.1	71.6
90°	11.7	21.0	30.3	32.6	51.3	76.2	88.6	78.8	59.1	44.3	44.3
92.5°	46.6	125.9	205.3	225.1	316.4	438.2	499.0	437.3	314.1	221.5	212.7
95°	112.0	257.0	402.1	438.4	778.4	1231.8	1458.6	1301.6	987.6	752.1	725.3
97.5°	193.6	321.5	449.6	481.6	1048.6	1804.7	2182.7	2083.5	1885.0	1736.1	1685.4
100°	256.5	372.6	488.7	517.7	1147.0	1985.9	2405.4	2412.7	2427.2	2438.0	2377.5
102.5°	310.1	418.5	526.7	553.8	1192.0	2042.9	2468.4	2594.8	2847.7	3037.3	2985.5
105°	401.1	492.8	584.6	607.5	1225.4	2049.3	2461.4	2744.9	3311.8	3737.0	3709.1
107.5°	494.4	579.9	665.3	686.7	1231.7	1958.2	2321.4	2716.8	3507.7	4100.7	4107.5
110°	557.4	634.6	711.8	731.0	1222.3	1877.4	2204.9	2646.9	3530.9	4194.0	4223.0



TEST NUMBER: P938447

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	619.1	692.7	766.3	784.7	1222.7	1806.7	2098.7	2551.1	3455.9	4134.5	4179.1
115°	712.4	780.3	848.2	865.2	1234.0	1725.7	1971.7	2407.4	3279.0	3932.8	3994.6
117.5°	804.5	866.2	927.9	943.3	1256.9	1675.1	1884.2	2277.5	3064.2	3654.1	3722.7
120°	858.2	916.2	974.2	988.7	1275.6	1658.0	1849.2	2208.6	2927.4	3466.5	3533.0
122.5°	910.6	969.2	1027.7	1042.4	1302.4	1649.1	1822.4	2146.0	2793.3	3278.7	3344.4
125°	991.1	1044.4	1097.8	1111.2	1338.5	1641.6	1793.2	2068.1	2617.9	3030.3	3090.8
127.5°	1056.4	1110.2	1164.2	1177.6	1374.7	1637.4	1768.7	2004.8	2476.9	2830.9	2882.0
130°	1091.4	1149.4	1207.5	1221.9	1401.1	1639.9	1759.4	1969.5	2389.9	2705.0	2752.2
132.5°	1127.5	1185.6	1243.6	1258.1	1422.5	1641.7	1751.3	1939.3	2315.5	2597.7	2640.0
135°	1181.1	1234.0	1286.9	1300.1	1445.8	1640.1	1737.2	1894.8	2209.9	2446.2	2482.6
137.5°	1236.0	1288.3	1340.6	1353.6	1480.8	1650.2	1735.0	1868.2	2134.5	2334.2	2364.1
140°	1281.4	1329.6	1377.8	1389.8	1502.2	1651.9	1726.8	1841.8	2072.0	2244.5	2272.4
142.5°	1316.3	1360.9	1405.5	1416.6	1520.0	1657.9	1726.8	1827.8	2029.9	2181.5	2205.4
145°	1370.0	1408.9	1447.8	1457.5	1543.4	1657.9	1715.1	1797.7	1963.1	2087.1	2105.2
147.5°	1423.7	1461.5	1499.4	1508.8	1577.6	1669.3	1715.1	1780.1	1910.2	2007.7	2022.8
150°	1458.6	1492.8	1527.0	1535.5	1595.4	1675.2	1715.1	1770.1	1879.9	1962.3	1974.5
152.5°	1494.8	1520.7	1546.7	1553.1	1607.1	1679.1	1715.1	1762.0	1855.8	1926.1	1935.3
155°	1548.4	1567.6	1586.8	1591.5	1632.7	1687.6	1715.1	1752.4	1827.1	1883.1	1889.1
157.5°	1588.1	1606.8	1625.4	1630.0	1658.4	1696.2	1715.1	1744.2	1802.2	1845.8	1850.1
160°	1614.9	1629.4	1643.9	1647.5	1670.0	1700.0	1715.1	1740.0	1789.8	1827.1	1829.5
162.5°	1641.7	1652.6	1663.5	1666.2	1682.5	1704.2	1715.1	1736.1	1778.1	1809.6	1811.9
165°	1670.8	1680.6	1690.5	1692.9	1700.3	1710.1	1715.1	1730.1	1760.2	1782.8	1785.2
167.5°	1697.6	1702.3	1707.0	1708.2	1714.3	1722.7	1726.8	1736.6	1756.3	1771.1	1772.1
170°	1715.1	1719.8	1724.4	1725.7	1726.0	1726.5	1726.8	1736.6	1756.3	1771.1	1771.1
172.5°	1724.4	1725.5	1726.5	1726.8	1726.8	1726.8	1726.8	1734.5	1750.1	1761.7	1760.8
175°	1737.2	1737.2	1737.2	1737.2	1733.8	1729.1	1726.8	1731.7	1741.5	1748.9	1748.9
177.5°	1737.2	1737.2	1737.2	1737.2	1734.5	1730.9	1729.1	1733.0	1740.8	1746.6	1745.6
180°	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	768.2	768.2
2.5°	820.1	815.2
5°	1054.7	1059.7
7.5°	1420.3	1417.9
10°	1766.1	1788.4
12.5°	2018.1	2023.1
15°	2171.2	2181.1
17.5°	2230.5	2233.0
20°	2233.0	2228.1
22.5°	2205.8	2200.9
25°	2173.8	2171.2
27.5°	2144.0	2146.6
30°	2131.7	2139.2
32.5°	2131.7	2144.0
35°	2136.6	2149.0
37.5°	2134.2	2149.0
40°	2124.3	2141.6
42.5°	2097.1	2109.4
45°	2055.1	2070.0
47.5°	2000.8	2010.6
50°	1931.7	1941.5
52.5°	1845.2	1847.6
55°	1741.5	1751.4
57.5°	1630.3	1632.7
60°	1506.7	1514.2
62.5°	1375.9	1375.9
65°	1237.6	1242.5
67.5°	1094.3	1106.6
70°	948.5	951.0
72.5°	805.2	805.2
75°	657.1	659.5
77.5°	516.2	516.2
80°	382.9	385.4
82.5°	264.3	269.3
85°	165.5	165.5
87.5°	76.6	69.2
90°	44.3	44.3
92.5°	177.5	142.3
95°	618.6	511.8
97.5°	1482.2	1279.1
100°	2135.5	1893.5
102.5°	2778.2	2571.0
105°	3597.7	3486.3
107.5°	4134.4	4161.3
110°	4339.1	4455.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4357.3	4535.6
115°	4241.8	4488.9
117.5°	3996.8	4271.0
120°	3799.4	4065.7
122.5°	3607.1	3869.9
125°	3332.9	3574.9
127.5°	3086.2	3290.4
130°	2940.9	3129.5
132.5°	2808.9	2977.9
135°	2628.2	2773.8
137.5°	2483.2	2602.4
140°	2383.8	2495.2
142.5°	2301.3	2397.2
145°	2177.8	2250.3
147.5°	2082.9	2143.0
150°	2023.3	2072.0
152.5°	1972.1	2009.0
155°	1913.5	1937.8
157.5°	1867.1	1884.2
160°	1839.4	1849.2
162.5°	1821.2	1830.5
165°	1795.1	1804.9
167.5°	1776.3	1780.4
170°	1771.1	1771.1
172.5°	1757.2	1753.6
175°	1748.9	1748.9
177.5°	1741.4	1737.2
180°	1737.2	1737.2



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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	3.81	4.57	4.89	5.65	7.13	16.99	17.75	18.06	18.83	20.31
	3H	4.51	5.19	5.59	6.28	7.77	18.82	19.51	19.91	20.59	22.08
	4H	4.80	5.45	5.90	6.54	8.04	19.46	20.11	20.56	21.20	22.70
	6H	5.05	5.65	6.15	6.74	8.25	19.89	20.49	20.99	21.58	23.09
	8H	5.11	5.68	6.22	6.79	8.30	20.01	20.58	21.11	21.68	23.19
	12H	5.13	5.67	6.24	6.77	8.30	20.07	20.61	21.18	21.71	23.24
4H	2H	11.02	11.67	12.12	12.75	14.25	17.25	17.90	18.35	18.99	20.49
	3H	12.57	13.12	13.68	14.23	15.74	19.29	19.83	20.40	20.95	22.46
	4H	12.66	13.16	13.78	14.27	15.80	20.05	20.55	21.16	21.66	23.19
	6H	12.67	13.10	13.79	14.23	15.75	20.59	21.01	21.71	22.14	23.66
	8H	12.64	13.04	13.76	14.16	15.70	20.75	21.15	21.86	22.27	23.81
	12H	12.59	12.96	13.73	14.09	15.64	20.83	21.20	21.97	22.33	23.87
8H	4H	14.10	14.50	15.22	15.62	17.16	20.10	20.50	21.22	21.62	23.16
	6H	14.34	14.67	15.48	15.83	17.37	20.73	21.06	21.87	22.22	23.76
	8H	14.35	14.65	15.50	15.79	17.34	20.95	21.24	22.09	22.38	23.94
	12H	14.32	14.57	15.47	15.71	17.30	21.09	21.34	22.24	22.48	24.07
12H	4H	14.24	14.60	15.38	15.73	17.28	20.05	20.42	21.19	21.55	23.09
	6H	14.60	14.89	15.74	16.03	17.58	20.71	21.00	21.86	22.14	23.70
	8H	14.66	14.92	15.81	16.05	17.65	20.94	21.19	22.09	22.33	23.92