

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: P938468

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938468
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-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

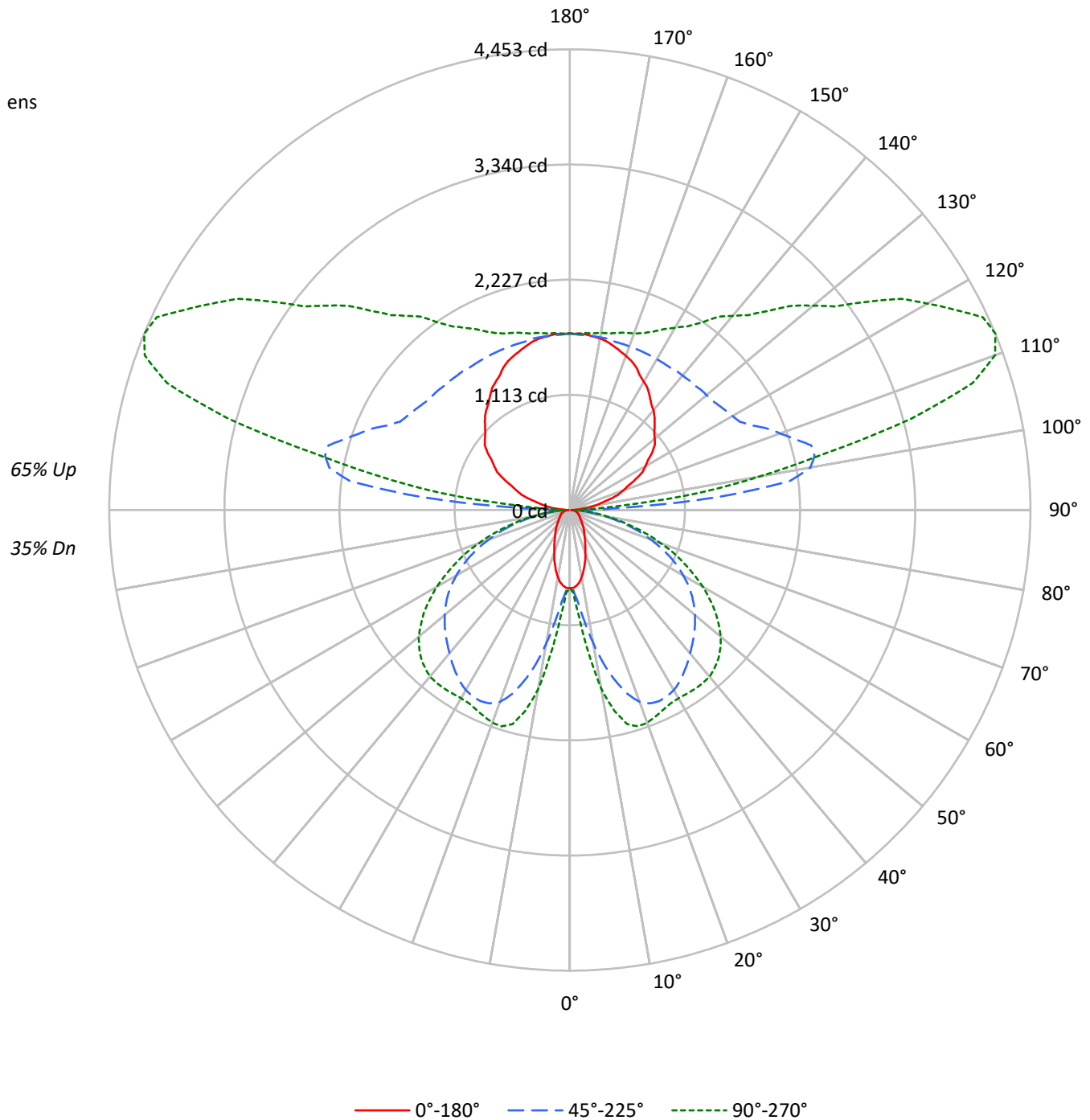
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16898.4 lumens
Efficiency: N/A
Efficacy: 116.7 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 (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: P938468
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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	35	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	29	29	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	24	24	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	20	20	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	17	17	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	15	15	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	13	13	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	11	11	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	10	10	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	9	9	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3500	3500	3500
5°	3418	4044	4704
10°	3101	5896	7798
15°	2635	7702	9416
20°	2145	8926	9596
25°	1790	9341	9401
30°	1510	9400	9383
35°	1335	9243	9626
40°	1163	9040	9877
45°	1053	8892	9916
50°	966	8758	9751
55°	925	8562	9319
60°	947	8186	8637
65°	985	7615	7699
70°	1049	6641	6504
75°	1163	5415	5075
80°	1270	3755	3421
85°	1127	1992	1751

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9916 cd/sqm



TEST NUMBER: P938468

CATALOG NUMBER: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-8-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.6	0.6
10°-20°	432.4	2.6
20°-30°	756.3	4.5
30°-40°	973.6	5.8
40°-50°	1087.5	6.4
50°-60°	1041.6	6.2
60°-70°	825.5	4.9
70°-80°	485.4	2.9
80°-90°	141.4	0.8
90°-100°	831.4	4.9
100°-110°	2185.9	12.9
110°-120°	2266.5	13.4
120°-130°	1818.0	10.8
130°-140°	1426.5	8.4
140°-150°	1094.9	6.5
150°-160°	788.5	4.7
160°-170°	482.5	2.9
170°-180°	163.0	1.0
0°-30°	1286.3	7.6
0°-40°	2259.9	13.4
0°-60°	4389.0	26.0
0°-90°	5841.2	34.6
90°-120°	5283.8	31.3
90°-150°	9623.2	56.9
90°-180°	11057.0	65.4
0°-180°	16898.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	735	788	888	1004	1040	68
15°	550	1016	1712	2076	2141	153
25°	352	1152	2040	2129	2132	162
35°	238	1101	1921	2030	2110	148
45°	162	878	1698	1945	2032	126
55°	116	558	1440	1673	1720	106
65°	92	296	1070	1203	1220	91
75°	68	182	587	645	648	71
85°	24	56	146	160	162	26
90°	12	32	87	44	44	11
95°	110	430	1432	738	502	122
105°	394	596	2417	3669	3423	417
115°	700	849	1936	3861	4407	691
125°	973	1091	1761	2975	3510	864
135°	1160	1276	1706	2402	2723	897
145°	1345	1431	1684	2049	2209	843
155°	1520	1563	1684	1849	1903	699
165°	1640	1662	1684	1750	1772	463
175°	1706	1706	1695	1717	1717	162
180°	1706	1706	1706	1706	1706	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3
2.5°	754.3	754.3	759.1	761.5	766.4	768.8	773.6	778.5	793.1	795.5	800.3
5°	734.8	744.5	776.1	788.2	822.2	868.2	887.6	919.2	984.6	1004.1	1016.2
7.5°	705.7	727.5	805.2	824.5	909.4	1030.7	1081.6	1149.5	1253.8	1304.8	1346.0
10°	659.6	705.7	844.0	890.1	1028.3	1212.6	1307.2	1401.8	1559.3	1629.7	1656.3
12.5°	608.7	683.9	885.2	948.3	1147.1	1416.3	1530.3	1634.6	1814.0	1908.6	1923.1
15°	550.5	652.4	924.0	1016.2	1273.2	1586.1	1712.1	1840.7	2008.0	2075.9	2092.9
17.5°	499.6	628.2	960.4	1057.4	1370.2	1738.8	1867.4	1974.1	2109.9	2155.9	2168.1
20°	436.5	589.3	984.6	1110.7	1472.1	1850.4	1974.1	2056.6	2148.7	2177.8	2182.6
22.5°	390.5	548.0	999.2	1130.1	1540.0	1918.3	2022.6	2088.0	2151.2	2160.8	2163.3
25°	351.7	502.0	996.7	1152.0	1598.2	1959.6	2039.6	2088.0	2124.5	2129.3	2129.3
27.5°	315.2	451.0	987.1	1156.8	1641.8	1969.3	2032.3	2066.3	2083.3	2092.9	2092.9
30°	283.8	402.6	962.8	1147.1	1661.2	1959.6	2010.5	2027.5	2044.4	2058.9	2066.3
32.5°	259.5	356.5	926.4	1127.7	1663.7	1935.3	1971.7	1981.4	2005.6	2039.6	2051.7
35°	237.7	310.5	885.2	1101.1	1649.1	1896.5	1920.7	1930.5	1978.9	2029.8	2046.8
37.5°	215.8	276.5	831.8	1055.0	1627.3	1850.4	1867.4	1884.4	1959.6	2020.1	2039.6
40°	194.0	247.4	768.8	1004.1	1593.3	1794.6	1809.1	1835.8	1935.3	2005.6	2025.0
42.5°	177.0	223.1	700.8	950.6	1549.7	1731.6	1753.4	1792.2	1906.1	1981.4	2003.2
45°	162.5	198.9	628.2	877.9	1493.9	1666.1	1697.6	1751.0	1872.2	1945.0	1964.4
47.5°	147.9	181.9	552.9	802.7	1433.3	1600.6	1641.8	1702.5	1826.1	1896.5	1913.5
50°	135.8	164.9	477.8	722.7	1367.8	1530.3	1578.8	1641.8	1767.9	1833.5	1855.2
52.5°	126.1	150.3	407.5	642.7	1292.6	1457.5	1513.3	1578.8	1697.6	1760.7	1775.2
55°	116.4	138.2	346.8	557.8	1215.0	1379.9	1440.5	1503.6	1620.0	1673.3	1683.1
57.5°	111.6	128.6	295.9	477.8	1132.5	1292.6	1360.5	1418.8	1527.9	1569.1	1578.8
60°	104.3	121.2	257.0	409.8	1042.9	1210.2	1268.3	1326.5	1418.8	1452.7	1460.0
62.5°	97.0	116.4	228.0	344.4	950.6	1113.2	1171.3	1224.8	1302.3	1326.5	1336.3
65°	92.1	111.6	206.1	295.9	856.1	1011.3	1069.5	1115.6	1178.6	1202.9	1207.8
67.5°	87.3	106.7	189.1	254.7	761.5	909.4	953.1	996.7	1045.3	1069.5	1072.0
70°	80.0	101.9	174.6	225.6	664.5	793.1	829.4	875.5	914.3	926.4	933.7
72.5°	75.2	94.6	164.9	203.7	565.0	681.5	715.4	742.1	776.1	788.2	788.2
75°	67.9	84.9	155.2	181.9	463.3	557.8	586.9	613.6	640.3	645.1	637.8
77.5°	60.7	75.2	133.3	152.8	361.4	441.4	465.6	480.1	502.0	506.8	509.3
80°	50.9	65.5	104.3	118.8	261.9	325.0	341.9	354.0	373.5	373.5	378.4
82.5°	38.8	50.9	75.2	84.9	177.0	223.1	237.7	244.9	257.0	257.0	257.0
85°	24.2	31.6	48.5	55.8	106.7	135.8	145.5	147.9	157.7	160.0	160.0
87.5°	12.1	17.0	31.6	34.0	55.8	70.3	70.3	75.2	75.2	72.8	70.3
90°	11.5	20.6	29.7	32.0	50.4	74.8	87.0	77.4	58.0	43.5	43.5
92.5°	45.8	123.6	201.5	221.0	310.6	430.2	490.0	429.4	308.3	217.5	208.9
95°	109.9	252.4	394.8	430.4	764.3	1209.4	1432.1	1277.9	969.6	738.4	712.1
97.5°	190.1	315.7	441.4	472.8	1029.6	1771.9	2143.0	2045.5	1850.7	1704.5	1654.7
100°	251.8	365.8	479.8	508.3	1126.1	1949.7	2361.6	2368.8	2383.0	2393.6	2334.2
102.5°	304.5	410.9	517.1	543.7	1170.3	2005.7	2423.4	2547.6	2795.8	2982.0	2931.2
105°	393.8	483.8	573.9	596.4	1203.1	2012.0	2416.6	2694.9	3251.5	3668.9	3641.6
107.5°	485.4	569.3	653.2	674.2	1209.2	1922.6	2279.2	2667.4	3443.8	4026.1	4032.7
110°	547.2	623.0	698.8	717.7	1200.1	1843.2	2164.8	2598.7	3466.7	4117.7	4146.1



TEST NUMBER: P938468

CATALOG NUMBER: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	607.9	680.1	752.3	770.4	1200.4	1773.8	2060.5	2504.7	3393.0	4059.2	4103.0
115°	699.5	766.1	832.7	849.4	1211.5	1694.3	1935.8	2363.6	3219.4	3861.2	3921.9
117.5°	789.9	850.4	911.0	926.1	1234.0	1644.6	1849.9	2236.1	3008.4	3587.6	3654.9
120°	842.5	899.5	956.5	970.7	1252.4	1627.8	1815.6	2168.4	2874.1	3403.4	3468.7
122.5°	894.0	951.6	1009.0	1023.4	1278.7	1619.1	1789.2	2106.9	2742.4	3219.0	3283.5
125°	973.0	1025.4	1077.8	1091.0	1314.1	1611.7	1760.6	2030.5	2570.3	2975.2	3034.5
127.5°	1037.2	1090.0	1143.0	1156.2	1349.7	1607.6	1736.6	1968.3	2431.8	2779.4	2829.5
130°	1071.5	1128.5	1185.5	1199.7	1375.6	1610.1	1727.4	1933.7	2346.4	2655.8	2702.2
132.5°	1107.0	1164.0	1221.0	1235.2	1396.6	1611.8	1719.4	1904.0	2273.4	2550.5	2591.9
135°	1159.6	1211.5	1263.5	1276.4	1419.5	1610.3	1705.6	1860.4	2169.7	2401.7	2437.4
137.5°	1213.5	1264.9	1316.2	1329.0	1453.8	1620.2	1703.4	1834.2	2095.6	2291.8	2321.0
140°	1258.1	1305.4	1352.7	1364.5	1474.8	1621.8	1695.3	1808.3	2034.3	2203.7	2231.0
142.5°	1292.4	1336.2	1379.9	1390.9	1492.4	1627.7	1695.3	1794.6	1993.0	2141.8	2165.3
145°	1345.1	1383.2	1421.4	1431.0	1515.3	1627.7	1683.9	1765.0	1927.3	2049.1	2066.9
147.5°	1397.7	1434.9	1472.1	1481.3	1548.9	1638.9	1683.9	1747.8	1875.4	1971.2	1986.0
150°	1432.1	1465.7	1499.2	1507.6	1566.3	1644.7	1683.9	1737.8	1845.7	1926.6	1938.5
152.5°	1467.6	1493.0	1518.5	1524.8	1577.9	1648.5	1683.9	1729.9	1822.0	1891.1	1900.1
155°	1520.3	1539.1	1557.9	1562.6	1603.0	1656.9	1683.9	1720.5	1793.8	1848.8	1854.8
157.5°	1559.2	1577.5	1595.8	1600.4	1628.2	1665.3	1683.9	1712.4	1769.4	1812.2	1816.4
160°	1585.5	1599.7	1614.0	1617.5	1639.6	1669.1	1683.9	1708.3	1757.2	1793.8	1796.2
162.5°	1611.8	1622.5	1633.2	1635.9	1651.9	1673.2	1683.9	1704.5	1745.7	1776.7	1779.0
165°	1640.4	1650.0	1659.7	1662.1	1669.4	1679.0	1683.9	1698.7	1728.2	1750.3	1752.7
167.5°	1666.7	1671.3	1675.9	1677.1	1683.1	1691.3	1695.3	1705.0	1724.3	1738.8	1739.9
170°	1683.9	1688.5	1693.1	1694.2	1694.6	1695.1	1695.3	1705.0	1724.3	1738.8	1738.8
172.5°	1693.1	1694.1	1695.1	1695.3	1695.3	1695.3	1695.3	1703.0	1718.2	1729.7	1728.8
175°	1705.6	1705.6	1705.6	1705.6	1702.2	1697.6	1695.3	1700.2	1709.8	1717.1	1717.1
177.5°	1705.6	1705.6	1705.6	1705.6	1703.0	1699.4	1697.6	1701.5	1709.1	1714.8	1713.8
180°	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	754.3	754.3
2.5°	805.2	800.3
5°	1035.5	1040.4
7.5°	1394.4	1392.1
10°	1734.0	1755.8
12.5°	1981.4	1986.3
15°	2131.7	2141.4
17.5°	2189.9	2192.4
20°	2192.4	2187.5
22.5°	2165.7	2160.8
25°	2134.2	2131.7
27.5°	2105.0	2107.5
30°	2092.9	2100.2
32.5°	2092.9	2105.0
35°	2097.8	2109.9
37.5°	2095.4	2109.9
40°	2085.6	2102.6
42.5°	2058.9	2071.1
45°	2017.7	2032.3
47.5°	1964.4	1974.1
50°	1896.5	1906.1
52.5°	1811.6	1814.0
55°	1709.8	1719.5
57.5°	1600.6	1603.0
60°	1479.3	1486.7
62.5°	1350.8	1350.8
65°	1215.0	1219.9
67.5°	1074.3	1086.5
70°	931.3	933.7
72.5°	790.6	790.6
75°	645.1	647.5
77.5°	506.8	506.8
80°	375.9	378.4
82.5°	259.5	264.4
85°	162.5	162.5
87.5°	75.2	67.9
90°	43.5	43.5
92.5°	174.3	139.7
95°	607.3	502.5
97.5°	1455.2	1255.8
100°	2096.7	1859.1
102.5°	2727.7	2524.2
105°	3532.2	3422.8
107.5°	4059.1	4085.6
110°	4260.1	4374.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4278.0	4453.0
115°	4164.6	4407.2
117.5°	3924.1	4193.2
120°	3730.2	3991.7
122.5°	3541.5	3799.4
125°	3272.2	3509.8
127.5°	3030.0	3230.5
130°	2887.3	3072.5
132.5°	2757.8	2923.7
135°	2580.4	2723.4
137.5°	2438.0	2555.0
140°	2340.4	2449.8
142.5°	2259.5	2353.6
145°	2138.1	2209.4
147.5°	2045.0	2104.0
150°	1986.4	2034.3
152.5°	1936.2	1972.4
155°	1878.7	1902.6
157.5°	1833.1	1849.9
160°	1805.9	1815.6
162.5°	1788.0	1797.2
165°	1762.4	1772.1
167.5°	1744.0	1748.0
170°	1738.8	1738.8
172.5°	1725.3	1721.7
175°	1717.1	1717.1
177.5°	1709.7	1705.6
180°	1705.6	1705.6



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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	3.75	4.51	4.82	5.59	7.06	16.93	17.69	18.00	18.77	20.24
	3H	4.45	5.13	5.53	6.22	7.71	18.76	19.44	19.84	20.53	22.02
	4H	4.74	5.39	5.83	6.48	7.98	19.40	20.05	20.49	21.14	22.63
	6H	4.99	5.58	6.09	6.68	8.19	19.83	20.42	20.93	21.51	23.02
	8H	5.05	5.62	6.16	6.73	8.23	19.94	20.51	21.05	21.62	23.12
	12H	5.07	5.61	6.18	6.71	8.24	20.01	20.55	21.12	21.65	23.18
4H	2H	10.95	11.60	12.05	12.69	14.19	17.19	17.84	18.29	18.93	20.42
	3H	12.51	13.05	13.62	14.17	15.68	19.23	19.77	20.33	20.88	22.39
	4H	12.60	13.10	13.71	14.20	15.74	19.99	20.49	21.10	21.59	23.12
	6H	12.61	13.03	13.72	14.16	15.68	20.52	20.95	21.64	22.08	23.60
	8H	12.58	12.98	13.70	14.10	15.64	20.68	21.08	21.80	22.20	23.74
	12H	12.53	12.89	13.67	14.03	15.57	20.77	21.13	21.91	22.27	23.81
8H	4H	14.04	14.44	15.16	15.56	17.10	20.04	20.44	21.16	21.56	23.10
	6H	14.27	14.61	15.42	15.77	17.30	20.66	21.00	21.81	22.16	23.69
	8H	14.29	14.58	15.44	15.72	17.28	20.88	21.17	22.03	22.32	23.87
	12H	14.25	14.51	15.41	15.65	17.24	21.02	21.28	22.17	22.42	24.01
12H	4H	14.18	14.54	15.31	15.67	17.22	19.99	20.35	21.12	21.48	23.03
	6H	14.53	14.82	15.68	15.96	17.52	20.65	20.94	21.79	22.08	23.64
	8H	14.60	14.85	15.75	15.99	17.58	20.87	21.13	22.02	22.27	23.86