

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: P937425

Luminaire Tested: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937425
REPORT IS A COMBINATION OF REPORTS P933557 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

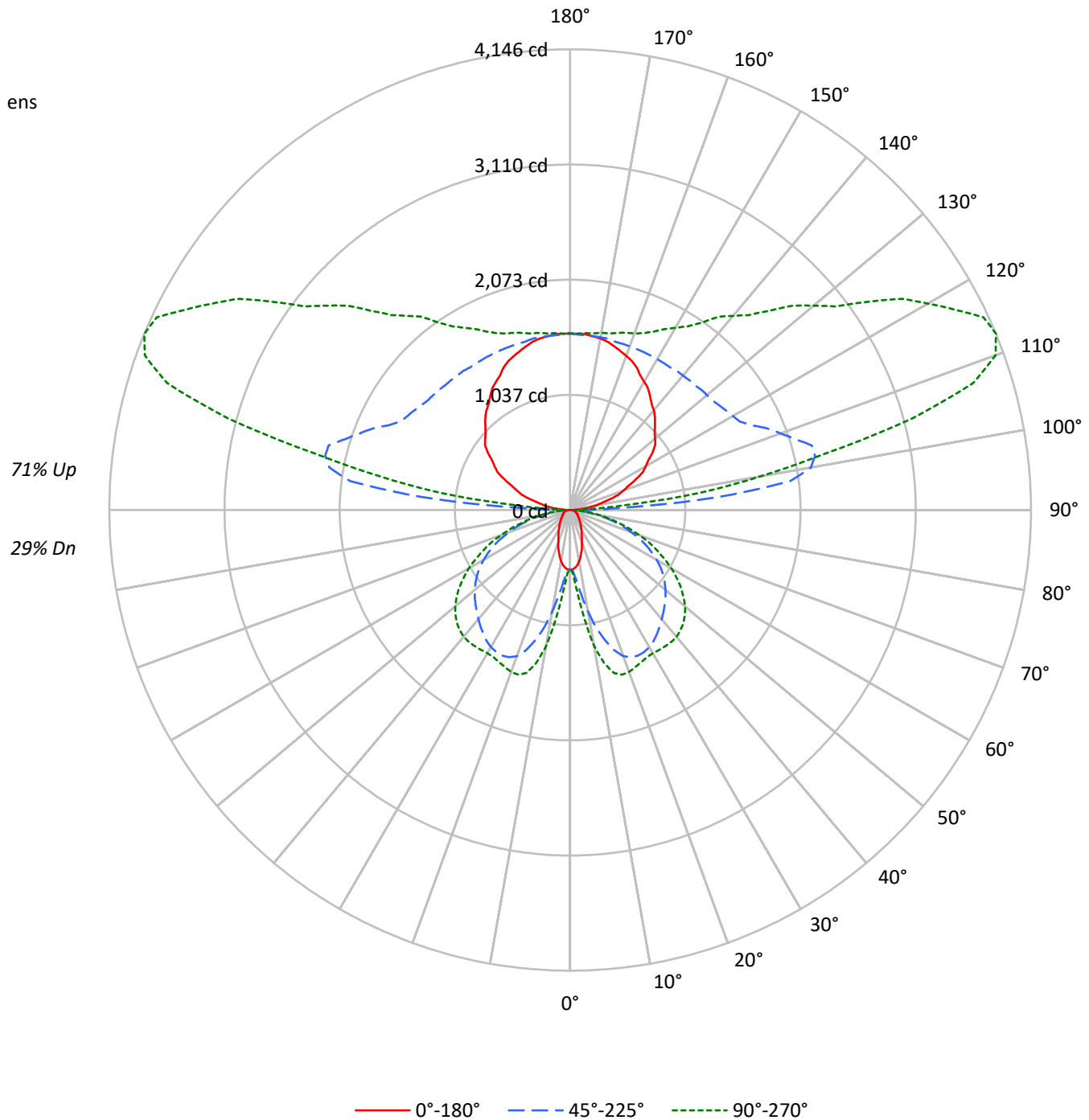
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14435.6 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 123.6
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: P937425
CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-12-2700K

Luminous Intensity Polar Plot



TEST NUMBER: P937425

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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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29			
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23			
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19			
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16			
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13			
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11			
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10			
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8			
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7			
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7			
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1653	1653	1653
5°	1616	1911	2222
10°	1466	2787	3684
15°	1247	3642	4448
20°	1015	4221	4534
25°	847	4418	4442
30°	715	4448	4433
35°	632	4375	4548
40°	551	4280	4666
45°	499	4211	4684
50°	459	4149	4607
55°	440	4058	4403
60°	451	3882	4080
65°	470	3613	3637
70°	501	3153	3073
75°	557	2573	2398
80°	614	1786	1616
85°	557	949	827

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4684 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	0.5
10°-20°	306.4	2.1
20°-30°	536.0	3.7
30°-40°	690.0	4.8
40°-50°	770.7	5.3
50°-60°	738.1	5.1
60°-70°	585.0	4.1
70°-80°	344.0	2.4
80°-90°	101.6	0.7
90°-100°	774.1	5.4
100°-110°	2035.1	14.1
110°-120°	2110.2	14.6
120°-130°	1692.7	11.7
130°-140°	1328.1	9.2
140°-150°	1019.4	7.1
150°-160°	734.1	5.1
160°-170°	449.2	3.1
170°-180°	151.8	1.1
0°-30°	911.6	6.3
0°-40°	1601.5	11.1
0°-60°	3110.3	21.5
0°-90°	4140.9	28.7
90°-120°	4919.5	34.1
90°-150°	8959.7	62.1
90°-180°	10295.0	71.3
0°-180°	14435.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	534	534	534	534	534	
5°	521	558	629	712	737	48
15°	390	720	1213	1471	1518	109
25°	249	816	1445	1509	1511	115
35°	168	780	1361	1438	1495	105
45°	115	622	1203	1378	1440	89
55°	82	395	1021	1186	1218	75
65°	65	210	758	852	864	65
75°	48	129	416	457	459	50
85°	17	40	103	113	115	18
90°	11	30	81	40	40	10
95°	102	401	1333	687	468	114
105°	367	555	2250	3416	3187	389
115°	651	791	1802	3595	4103	643
125°	906	1016	1639	2770	3268	804
135°	1080	1188	1588	2236	2536	835
145°	1252	1332	1568	1908	2057	785
155°	1415	1455	1568	1721	1771	650
165°	1527	1548	1568	1630	1650	431
175°	1588	1588	1578	1599	1599	151
180°	1588	1588	1588	1588	1588	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	534.5	534.5	534.5	534.5	534.5	534.5	534.5	534.5	534.5	534.5	534.5
2.5°	534.5	534.5	537.9	539.6	543.1	544.8	548.3	551.7	562.0	563.7	567.1
5°	520.8	527.6	550.0	558.5	582.6	615.2	629.0	651.4	697.7	711.5	720.1
7.5°	500.1	515.6	570.6	584.3	644.5	730.5	766.5	814.7	888.5	924.6	953.8
10°	467.5	500.1	598.1	630.8	728.7	859.3	926.3	993.4	1105.1	1155.0	1173.8
12.5°	431.3	484.6	627.3	671.9	812.9	1003.7	1084.5	1158.4	1285.5	1352.6	1362.8
15°	390.2	462.3	654.8	720.1	902.3	1123.9	1213.4	1304.4	1423.1	1471.2	1483.2
17.5°	354.0	445.1	680.6	749.3	971.1	1232.3	1323.3	1399.0	1495.2	1527.9	1536.5
20°	309.4	417.7	697.7	787.2	1043.2	1311.3	1399.0	1457.4	1522.7	1543.3	1546.7
22.5°	276.7	388.4	708.1	800.9	1091.3	1359.4	1433.3	1479.8	1524.4	1531.3	1533.0
25°	249.2	355.7	706.4	816.4	1132.6	1388.6	1445.4	1479.8	1505.5	1509.0	1509.0
27.5°	223.4	319.7	699.4	819.8	1163.5	1395.6	1440.2	1464.2	1476.3	1483.2	1483.2
30°	201.1	285.3	682.3	812.9	1177.2	1388.6	1424.8	1436.8	1448.8	1459.1	1464.2
32.5°	183.9	252.7	656.5	799.1	1179.0	1371.5	1397.3	1404.1	1421.3	1445.4	1454.0
35°	168.4	220.0	627.3	780.2	1168.7	1344.0	1361.1	1368.1	1402.4	1438.5	1450.5
37.5°	153.0	195.9	589.5	747.6	1153.2	1311.3	1323.3	1335.3	1388.6	1431.6	1445.4
40°	137.5	175.3	544.8	711.5	1129.2	1271.8	1282.1	1301.0	1371.5	1421.3	1435.0
42.5°	125.5	158.1	496.7	673.7	1098.2	1227.1	1242.6	1270.1	1350.8	1404.1	1419.6
45°	115.1	140.9	445.1	622.1	1058.7	1180.7	1203.0	1240.9	1326.8	1378.3	1392.1
47.5°	104.8	128.9	391.9	568.8	1015.7	1134.3	1163.5	1206.5	1294.1	1344.0	1356.0
50°	96.3	116.8	338.6	512.1	969.3	1084.5	1118.8	1163.5	1252.9	1299.3	1314.8
52.5°	89.3	106.6	288.7	455.4	916.1	1032.9	1072.4	1118.8	1203.0	1247.7	1258.0
55°	82.5	98.0	245.7	395.3	861.0	977.9	1020.9	1065.5	1148.0	1185.9	1192.7
57.5°	79.1	91.1	209.7	338.6	802.6	916.1	964.1	1005.4	1082.7	1112.0	1118.8
60°	73.9	85.9	182.2	290.5	739.0	857.6	898.9	940.1	1005.4	1029.5	1034.6
62.5°	68.8	82.5	161.5	244.0	673.7	788.9	830.1	867.9	922.9	940.1	947.0
65°	65.3	79.1	146.1	209.7	606.7	716.7	758.0	790.6	835.3	852.4	855.8
67.5°	61.8	75.6	134.0	180.5	539.6	644.5	675.4	706.4	740.7	758.0	759.7
70°	56.7	72.2	123.8	159.8	470.9	562.0	587.8	620.4	647.9	656.5	661.7
72.5°	53.3	67.0	116.8	144.3	400.4	482.9	507.0	525.9	550.0	558.5	558.5
75°	48.1	60.1	110.0	128.9	328.2	395.3	415.9	434.8	453.7	457.1	452.0
77.5°	43.0	53.3	94.6	108.3	256.1	312.8	329.9	340.3	355.7	359.2	360.9
80°	36.1	46.4	73.9	84.2	185.6	230.3	242.3	250.9	264.7	264.7	268.1
82.5°	27.5	36.1	53.3	60.1	125.5	158.1	168.4	173.6	182.2	182.2	182.2
85°	17.2	22.4	34.3	39.5	75.6	96.3	103.1	104.8	111.7	113.4	113.4
87.5°	8.6	12.0	22.4	24.1	39.5	49.9	49.9	53.3	53.3	51.6	49.9
90°	10.7	19.2	27.7	29.8	46.9	69.6	81.0	72.0	54.0	40.5	40.5
92.5°	42.6	115.1	187.6	205.7	289.2	400.5	456.2	399.8	287.1	202.5	194.5
95°	102.3	235.0	367.6	400.8	711.6	1126.1	1333.3	1189.8	902.7	687.4	663.0
97.5°	176.9	293.9	410.9	440.2	958.5	1649.6	1995.2	1904.4	1723.0	1587.0	1540.6
100°	234.5	340.5	446.6	473.2	1048.4	1815.3	2198.8	2205.4	2218.7	2228.6	2173.3
102.5°	283.5	382.5	481.5	506.2	1089.6	1867.5	2256.3	2371.9	2603.0	2776.4	2729.0
105°	366.7	450.5	534.3	555.3	1120.2	1873.4	2249.9	2509.1	3027.3	3415.9	3390.5
107.5°	451.9	530.1	608.2	627.8	1125.8	1789.9	2122.0	2483.5	3206.3	3748.4	3754.6
110°	509.5	580.0	650.6	668.3	1117.3	1716.0	2015.4	2419.5	3227.6	3833.7	3860.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	565.9	633.3	700.5	717.3	1117.7	1651.5	1918.5	2332.0	3159.1	3779.3	3820.1
115°	651.2	713.3	775.3	790.8	1128.0	1577.5	1802.3	2200.7	2997.4	3594.9	3651.4
117.5°	735.4	791.8	848.1	862.2	1149.0	1531.2	1722.3	2081.9	2800.9	3340.2	3402.8
120°	784.4	837.5	890.6	903.8	1166.1	1515.7	1690.4	2018.9	2675.9	3168.6	3229.5
122.5°	832.4	886.0	939.5	952.9	1190.6	1507.5	1665.9	1961.7	2553.3	2997.0	3057.1
125°	906.0	954.7	1003.5	1015.7	1223.5	1500.7	1639.2	1890.5	2393.1	2770.0	2825.3
127.5°	965.6	1014.9	1064.2	1076.5	1256.6	1496.8	1616.9	1832.6	2264.1	2587.8	2634.4
130°	997.6	1050.7	1103.7	1116.9	1280.8	1499.2	1608.3	1800.4	2184.6	2472.7	2515.8
132.5°	1030.7	1083.7	1136.8	1150.0	1300.2	1500.6	1600.8	1772.7	2116.7	2374.6	2413.3
135°	1079.7	1128.0	1176.3	1188.3	1321.6	1499.3	1588.1	1732.1	2020.0	2236.0	2269.3
137.5°	1129.8	1177.6	1225.4	1237.4	1353.5	1508.5	1585.9	1707.7	1951.2	2133.8	2161.0
140°	1171.4	1215.4	1259.4	1270.4	1373.1	1510.0	1578.4	1683.6	1893.9	2051.7	2077.2
142.5°	1203.3	1244.0	1284.8	1294.9	1389.4	1515.4	1578.4	1670.8	1855.6	1994.1	2016.0
145°	1252.3	1287.9	1323.4	1332.3	1410.8	1515.5	1567.8	1643.3	1794.4	1907.8	1924.4
147.5°	1301.3	1335.9	1370.5	1379.2	1442.0	1525.9	1567.8	1627.3	1746.2	1835.4	1849.1
150°	1333.3	1364.6	1395.8	1403.7	1458.4	1531.4	1567.8	1618.1	1718.4	1793.8	1804.9
152.5°	1366.3	1390.0	1413.8	1419.6	1469.0	1534.9	1567.8	1610.7	1696.4	1760.7	1769.1
155°	1415.4	1432.9	1450.5	1454.8	1492.5	1542.7	1567.8	1601.9	1670.1	1721.2	1726.8
157.5°	1451.6	1468.7	1485.8	1490.0	1516.0	1550.6	1567.8	1594.3	1647.4	1687.2	1691.1
160°	1476.1	1489.4	1502.7	1506.0	1526.6	1554.1	1567.8	1590.6	1636.0	1670.1	1672.3
162.5°	1500.6	1510.5	1520.5	1523.0	1537.9	1557.8	1567.8	1587.0	1625.3	1654.1	1656.2
165°	1527.3	1536.2	1545.3	1547.5	1554.3	1563.3	1567.8	1581.6	1609.0	1629.6	1631.8
167.5°	1551.8	1556.1	1560.3	1561.4	1567.1	1574.7	1578.4	1587.5	1605.5	1619.0	1619.9
170°	1567.8	1572.1	1576.4	1577.4	1577.7	1578.2	1578.4	1587.5	1605.5	1619.0	1619.0
172.5°	1576.3	1577.2	1578.2	1578.4	1578.4	1578.4	1578.4	1585.5	1599.8	1610.5	1609.6
175°	1588.1	1588.1	1588.1	1588.1	1584.8	1580.6	1578.4	1583.0	1591.9	1598.7	1598.7
177.5°	1588.1	1588.1	1588.1	1588.1	1585.6	1582.3	1580.6	1584.2	1591.2	1596.5	1595.6
180°	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	534.5	534.5
2.5°	570.6	567.1
5°	733.9	737.3
7.5°	988.2	986.5
10°	1228.8	1244.3
12.5°	1404.1	1407.5
15°	1510.7	1517.5
17.5°	1552.0	1553.7
20°	1553.7	1550.2
22.5°	1534.7	1531.3
25°	1512.4	1510.7
27.5°	1491.7	1493.5
30°	1483.2	1488.3
32.5°	1483.2	1491.7
35°	1486.6	1495.2
37.5°	1484.9	1495.2
40°	1478.0	1490.0
42.5°	1459.1	1467.7
45°	1429.9	1440.2
47.5°	1392.1	1399.0
50°	1344.0	1350.8
52.5°	1283.8	1285.5
55°	1211.7	1218.5
57.5°	1134.3	1136.0
60°	1048.4	1053.5
62.5°	957.3	957.3
65°	861.0	864.5
67.5°	761.4	769.9
70°	660.0	661.7
72.5°	560.3	560.3
75°	457.1	458.8
77.5°	359.2	359.2
80°	266.4	268.1
82.5°	183.9	187.3
85°	115.1	115.1
87.5°	53.3	48.1
90°	40.5	40.5
92.5°	162.2	130.0
95°	565.4	467.9
97.5°	1354.9	1169.2
100°	1952.1	1730.9
102.5°	2539.6	2350.1
105°	3288.6	3186.8
107.5°	3779.3	3803.9
110°	3966.3	4072.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3983.1	4146.0
115°	3877.4	4103.3
117.5°	3653.4	3904.0
120°	3473.0	3716.5
122.5°	3297.2	3537.4
125°	3046.5	3267.7
127.5°	2821.1	3007.7
130°	2688.2	2860.6
132.5°	2567.7	2722.1
135°	2402.4	2535.6
137.5°	2269.9	2378.9
140°	2179.1	2280.9
142.5°	2103.6	2191.3
145°	1990.7	2057.0
147.5°	1904.0	1958.9
150°	1849.4	1893.9
152.5°	1802.7	1836.4
155°	1749.1	1771.4
157.5°	1706.7	1722.3
160°	1681.4	1690.4
162.5°	1664.8	1673.3
165°	1640.9	1649.8
167.5°	1623.7	1627.5
170°	1619.0	1619.0
172.5°	1606.3	1602.9
175°	1598.7	1598.7
177.5°	1591.8	1588.1
180°	1588.1	1588.1



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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	0.38	1.10	1.50	2.21	3.76	13.58	14.29	14.69	15.41	16.95
	3H	1.08	1.72	2.20	2.84	4.40	15.41	16.05	16.53	17.17	18.73
	4H	1.37	1.98	2.50	3.10	4.67	16.05	16.66	17.18	17.78	19.35
	6H	1.61	2.17	2.75	3.30	4.88	16.48	17.04	17.62	18.17	19.74
	8H	1.68	2.21	2.82	3.35	4.92	16.60	17.13	17.74	18.27	19.84
	12H	1.69	2.20	2.84	3.33	4.92	16.66	17.17	17.81	18.31	19.90
4H	2H	7.59	8.20	8.73	9.32	10.89	13.83	14.44	14.97	15.56	17.13
	3H	9.14	9.65	10.29	10.80	12.38	15.87	16.38	17.02	17.53	19.11
	4H	9.23	9.70	10.38	10.84	12.44	16.63	17.10	17.78	18.24	19.84
	6H	9.23	9.64	10.39	10.80	12.38	17.17	17.57	18.32	18.73	20.32
	8H	9.21	9.58	10.36	10.73	12.34	17.33	17.71	18.48	18.86	20.46
	12H	9.15	9.50	10.33	10.66	12.27	17.42	17.76	18.59	18.92	20.53
8H	4H	10.67	11.04	11.82	12.19	13.80	16.68	17.06	17.84	18.21	19.81
	6H	10.90	11.21	12.08	12.41	14.01	17.31	17.62	18.48	18.81	20.41
	8H	10.92	11.19	12.10	12.36	13.98	17.53	17.80	18.71	18.97	20.59
	12H	10.88	11.12	12.06	12.29	13.94	17.67	17.91	18.85	19.08	20.73
12H	4H	10.80	11.15	11.98	12.31	13.92	16.63	16.97	17.80	18.13	19.74
	6H	11.16	11.43	12.34	12.60	14.23	17.29	17.56	18.47	18.73	20.35
	8H	11.22	11.46	12.41	12.63	14.29	17.51	17.75	18.70	18.92	20.58