

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: P937427

Luminaire Tested: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937427
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-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

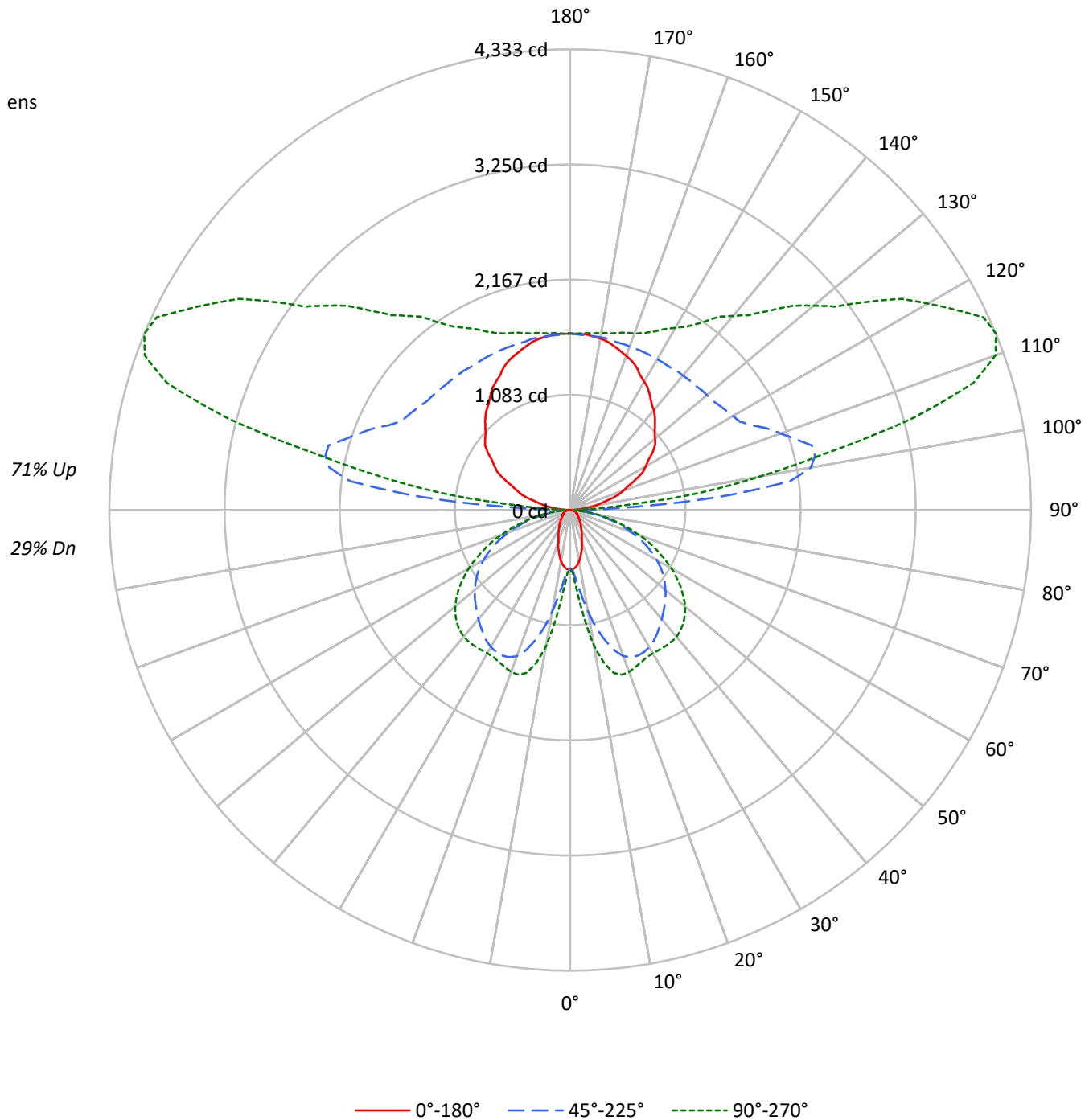
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15086.2 lumens
Efficiency: N/A
Efficacy: 122.1 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: P937427
CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-12-3500K

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	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°	1728	1728	1728
5°	1688	1997	2322
10°	1532	2912	3850
15°	1303	3806	4649
20°	1061	4411	4738
25°	886	4617	4642
30°	747	4648	4633
35°	661	4572	4753
40°	576	4473	4877
45°	522	4401	4896
50°	479	4336	4815
55°	459	4241	4601
60°	471	4057	4264
65°	491	3775	3801
70°	524	3295	3211
75°	583	2688	2506
80°	643	1867	1689
85°	580	992	864

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4896 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.3	0.5
10°-20°	320.2	2.1
20°-30°	560.1	3.7
30°-40°	721.1	4.8
40°-50°	805.4	5.3
50°-60°	771.4	5.1
60°-70°	611.3	4.1
70°-80°	359.5	2.4
80°-90°	106.2	0.7
90°-100°	809.0	5.4
100°-110°	2126.9	14.1
110°-120°	2205.3	14.6
120°-130°	1768.9	11.7
130°-140°	1388.0	9.2
140°-150°	1065.3	7.1
150°-160°	767.2	5.1
160°-170°	469.4	3.1
170°-180°	158.6	1.1
0°-30°	952.6	6.3
0°-40°	1673.7	11.1
0°-60°	3250.5	21.5
0°-90°	4327.5	28.7
90°-120°	5141.2	34.1
90°-150°	9363.4	62.1
90°-180°	10759.0	71.3
0°-180°	15086.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	559	559	559	559	559	
5°	544	584	657	744	770	50
15°	408	753	1268	1537	1586	113
25°	260	853	1510	1577	1579	120
35°	176	815	1422	1503	1563	110
45°	120	650	1257	1440	1505	93
55°	86	413	1067	1239	1273	79
65°	68	219	792	891	903	68
75°	50	135	435	478	480	53
85°	18	41	108	118	120	19
90°	11	31	85	42	42	10
95°	107	419	1393	718	489	119
105°	383	580	2351	3570	3330	406
115°	680	826	1884	3757	4288	672
125°	947	1062	1713	2895	3415	841
135°	1128	1242	1660	2337	2650	873
145°	1309	1392	1638	1994	2150	820
155°	1479	1520	1638	1799	1851	680
165°	1596	1617	1638	1703	1724	450
175°	1660	1660	1650	1671	1671	158
180°	1660	1660	1660	1660	1660	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	558.6	558.6	558.6	558.6	558.6	558.6	558.6	558.6	558.6	558.6	558.6
2.5°	558.6	558.6	562.2	564.0	567.5	569.3	573.0	576.5	587.3	589.1	592.7
5°	544.2	551.4	574.8	583.7	608.9	643.0	657.3	680.7	729.2	743.6	752.6
7.5°	522.6	538.8	596.3	610.6	673.6	763.4	801.0	851.4	928.6	966.3	996.8
10°	488.5	522.6	625.0	659.2	761.5	898.1	968.0	1038.1	1154.9	1207.0	1226.7
12.5°	450.8	506.5	655.5	702.2	849.5	1048.9	1133.4	1210.6	1343.5	1413.6	1424.3
15°	407.7	483.2	684.3	752.6	943.0	1174.6	1268.1	1363.2	1487.2	1537.4	1550.0
17.5°	370.0	465.1	711.2	783.1	1014.8	1287.8	1382.9	1462.0	1562.6	1596.7	1605.7
20°	323.3	436.5	729.2	822.6	1090.2	1370.4	1462.0	1523.1	1591.4	1612.9	1616.4
22.5°	289.2	405.9	740.0	837.0	1140.5	1420.7	1497.9	1546.5	1593.1	1600.3	1602.1
25°	260.5	371.8	738.2	853.2	1183.6	1451.2	1510.5	1546.5	1573.3	1577.0	1577.0
27.5°	233.5	334.1	731.0	856.7	1215.9	1458.5	1505.1	1530.2	1542.8	1550.0	1550.0
30°	210.1	298.1	713.0	849.5	1230.3	1451.2	1489.0	1501.6	1514.1	1524.9	1530.2
32.5°	192.2	264.0	686.1	835.1	1232.1	1433.3	1460.2	1467.4	1485.3	1510.5	1519.5
35°	176.0	229.9	655.5	815.4	1221.4	1404.5	1422.5	1429.7	1465.6	1503.4	1515.8
37.5°	159.9	204.8	616.1	781.3	1205.1	1370.4	1382.9	1395.5	1451.2	1496.1	1510.5
40°	143.7	183.2	569.3	743.6	1180.0	1329.1	1339.9	1359.6	1433.3	1485.3	1499.7
42.5°	131.1	165.2	519.1	704.1	1147.7	1282.4	1298.6	1327.3	1411.7	1467.4	1483.5
45°	120.3	147.3	465.1	650.2	1106.4	1233.9	1257.3	1296.8	1386.6	1440.4	1454.8
47.5°	109.5	134.7	409.5	594.5	1061.5	1185.4	1215.9	1260.8	1352.4	1404.5	1417.1
50°	100.6	122.1	353.8	535.2	1012.9	1133.4	1169.2	1215.9	1309.4	1357.9	1374.0
52.5°	93.4	111.4	301.7	475.9	957.3	1079.4	1120.8	1169.2	1257.3	1303.9	1314.7
55°	86.2	102.4	256.8	413.1	899.9	1022.0	1066.9	1113.5	1199.8	1239.3	1246.5
57.5°	82.7	95.2	219.1	353.8	838.8	957.3	1007.6	1050.7	1131.5	1162.1	1169.2
60°	77.2	89.8	190.4	303.6	772.3	896.3	939.4	982.4	1050.7	1075.9	1081.2
62.5°	71.9	86.2	168.8	255.0	704.1	824.4	867.5	907.0	964.5	982.4	989.6
65°	68.3	82.7	152.6	219.1	634.0	749.0	792.1	826.2	872.9	890.8	894.4
67.5°	64.6	79.0	140.1	188.6	564.0	673.6	705.9	738.2	774.1	792.1	793.9
70°	59.3	75.4	129.3	167.0	492.1	587.3	614.3	648.4	677.1	686.1	691.5
72.5°	55.7	70.1	122.1	150.9	418.5	504.7	529.9	549.6	574.8	583.7	583.7
75°	50.3	62.8	115.0	134.7	343.0	413.1	434.6	454.4	474.2	477.7	472.4
77.5°	44.9	55.7	98.8	113.2	267.6	326.9	344.8	355.6	371.8	375.3	377.1
80°	37.8	48.5	77.2	88.0	194.0	240.7	253.2	262.3	276.6	276.6	280.2
82.5°	28.7	37.8	55.7	62.8	131.1	165.2	176.0	181.4	190.4	190.4	190.4
85°	17.9	23.4	35.9	41.3	79.0	100.6	107.7	109.5	116.8	118.5	118.5
87.5°	9.0	12.6	23.4	25.2	41.3	52.1	52.1	55.7	55.7	53.9	52.1
90°	11.2	20.1	28.9	31.2	49.0	72.7	84.6	75.2	56.4	42.3	42.3
92.5°	44.5	120.2	196.0	214.9	302.2	418.5	476.7	417.8	300.0	211.6	203.2
95°	106.9	245.6	384.2	418.8	743.6	1176.8	1393.4	1243.4	943.4	718.4	692.9
97.5°	184.9	307.2	429.4	460.1	1001.7	1723.9	2085.1	1990.3	1800.7	1658.5	1610.0
100°	245.0	355.9	466.8	494.5	1095.6	1897.1	2297.9	2304.8	2318.7	2329.0	2271.3
102.5°	296.3	399.7	503.2	529.1	1138.7	1951.6	2358.0	2478.8	2720.3	2901.6	2852.0
105°	383.2	470.8	558.4	580.3	1170.7	1957.8	2351.3	2622.2	3163.7	3569.9	3543.3
107.5°	472.3	554.0	635.6	656.1	1176.6	1870.6	2217.6	2595.4	3350.8	3917.4	3923.8
110°	532.4	606.2	679.9	698.4	1167.6	1793.4	2106.2	2528.5	3373.0	4006.4	4034.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	591.5	661.8	732.0	749.6	1168.1	1726.0	2004.9	2437.1	3301.4	3949.7	3992.2
115°	680.5	745.4	810.2	826.5	1178.8	1648.6	1883.5	2299.8	3132.5	3756.9	3816.0
117.5°	768.5	827.5	886.4	901.1	1200.8	1600.2	1800.0	2175.7	2927.2	3490.8	3556.2
120°	819.8	875.2	930.7	944.6	1218.6	1584.0	1766.6	2109.9	2796.5	3311.4	3375.1
122.5°	869.9	925.9	981.8	995.8	1244.2	1575.4	1741.0	2050.1	2668.4	3132.1	3194.9
125°	946.8	997.8	1048.7	1061.5	1278.7	1568.3	1713.1	1975.7	2500.9	2894.9	2952.6
127.5°	1009.1	1060.6	1112.1	1125.0	1313.2	1564.2	1689.7	1915.2	2366.2	2704.4	2753.1
130°	1042.6	1098.0	1153.4	1167.3	1338.5	1566.7	1680.8	1881.6	2283.1	2584.1	2629.2
132.5°	1077.1	1132.6	1188.0	1201.8	1358.8	1568.2	1672.9	1852.6	2212.1	2481.7	2522.0
135°	1128.4	1178.8	1229.3	1241.9	1381.2	1566.8	1659.6	1810.1	2111.0	2336.8	2371.6
137.5°	1180.7	1230.7	1280.6	1293.1	1414.5	1576.5	1657.4	1784.6	2039.1	2229.9	2258.4
140°	1224.1	1270.2	1316.2	1327.7	1435.0	1578.1	1649.6	1759.4	1979.3	2144.2	2170.8
142.5°	1257.5	1300.1	1342.7	1353.3	1452.0	1583.7	1649.6	1746.1	1939.2	2084.0	2106.9
145°	1308.8	1345.9	1383.0	1392.3	1474.3	1583.8	1638.5	1717.4	1875.3	1993.8	2011.1
147.5°	1360.0	1396.1	1432.3	1441.3	1507.0	1594.7	1638.5	1700.6	1824.9	1918.1	1932.4
150°	1393.4	1426.0	1458.7	1466.9	1524.1	1600.4	1638.5	1691.0	1795.9	1874.6	1886.2
152.5°	1427.9	1452.6	1477.5	1483.6	1535.2	1604.0	1638.5	1683.3	1772.8	1840.0	1848.8
155°	1479.2	1497.5	1515.8	1520.4	1559.8	1612.3	1638.5	1674.1	1745.3	1798.8	1804.6
157.5°	1517.0	1534.9	1552.7	1557.2	1584.3	1620.5	1638.5	1666.2	1721.6	1763.2	1767.3
160°	1542.6	1556.6	1570.4	1573.9	1595.4	1624.1	1638.5	1662.2	1709.7	1745.3	1747.7
162.5°	1568.2	1578.6	1589.0	1591.6	1607.3	1628.0	1638.5	1658.5	1698.6	1728.6	1730.9
165°	1596.1	1605.5	1614.9	1617.2	1624.3	1633.8	1638.5	1652.9	1681.5	1703.0	1705.4
167.5°	1621.7	1626.2	1630.6	1631.8	1637.7	1645.6	1649.6	1659.0	1677.9	1692.0	1692.9
170°	1638.5	1643.0	1647.4	1648.5	1648.8	1649.3	1649.6	1659.0	1677.9	1692.0	1692.0
172.5°	1647.3	1648.3	1649.3	1649.6	1649.6	1649.6	1649.6	1657.0	1671.9	1683.0	1682.1
175°	1659.6	1659.6	1659.6	1659.6	1656.3	1651.8	1649.6	1654.3	1663.7	1670.7	1670.7
177.5°	1659.6	1659.6	1659.6	1659.6	1657.1	1653.6	1651.8	1655.5	1663.0	1668.5	1667.5
180°	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	558.6	558.6
2.5°	596.3	592.7
5°	766.9	770.5
7.5°	1032.8	1031.0
10°	1284.2	1300.4
12.5°	1467.4	1470.9
15°	1578.8	1585.9
17.5°	1621.9	1623.7
20°	1623.7	1620.1
22.5°	1603.9	1600.3
25°	1580.6	1578.8
27.5°	1559.0	1560.8
30°	1550.0	1555.4
32.5°	1550.0	1559.0
35°	1553.6	1562.6
37.5°	1551.8	1562.6
40°	1544.6	1557.2
42.5°	1524.9	1533.9
45°	1494.3	1505.1
47.5°	1454.8	1462.0
50°	1404.5	1411.7
52.5°	1341.7	1343.5
55°	1266.3	1273.4
57.5°	1185.4	1187.2
60°	1095.6	1101.0
62.5°	1000.4	1000.4
65°	899.9	903.4
67.5°	795.7	804.6
70°	689.7	691.5
72.5°	585.6	585.6
75°	477.7	479.5
77.5°	375.3	375.3
80°	278.4	280.2
82.5°	192.2	195.8
85°	120.3	120.3
87.5°	55.7	50.3
90°	42.3	42.3
92.5°	169.5	135.9
95°	590.9	489.0
97.5°	1416.0	1221.9
100°	2040.1	1808.9
102.5°	2654.0	2456.0
105°	3436.8	3330.4
107.5°	3949.6	3975.3
110°	4145.1	4256.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4162.6	4332.9
115°	4052.1	4288.2
117.5°	3818.1	4080.0
120°	3629.5	3884.0
122.5°	3445.8	3696.8
125°	3183.8	3415.0
127.5°	2948.2	3143.3
130°	2809.3	2989.6
132.5°	2683.4	2844.8
135°	2510.7	2649.8
137.5°	2372.2	2486.1
140°	2277.3	2383.7
142.5°	2198.4	2290.0
145°	2080.4	2149.7
147.5°	1989.8	2047.2
150°	1932.8	1979.3
152.5°	1884.0	1919.1
155°	1827.9	1851.2
157.5°	1783.6	1800.0
160°	1757.1	1766.6
162.5°	1739.8	1748.7
165°	1714.8	1724.2
167.5°	1696.9	1700.8
170°	1692.0	1692.0
172.5°	1678.7	1675.2
175°	1670.7	1670.7
177.5°	1663.6	1659.6
180°	1659.6	1659.6



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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	0.54	1.25	1.65	2.37	3.91	13.73	14.45	14.84	15.56	17.10
	3H	1.23	1.87	2.35	2.99	4.55	15.56	16.21	16.69	17.33	18.89
	4H	1.52	2.13	2.65	3.25	4.82	16.20	16.82	17.34	17.94	19.50
	6H	1.76	2.33	2.91	3.45	5.03	16.63	17.19	17.77	18.32	19.90
	8H	1.83	2.36	2.97	3.50	5.07	16.75	17.29	17.90	18.43	20.00
	12H	1.84	2.35	2.99	3.48	5.08	16.82	17.32	17.97	18.46	20.05
4H	2H	7.74	8.35	8.88	9.48	11.04	13.98	14.60	15.13	15.72	17.28
	3H	9.30	9.81	10.44	10.95	12.53	16.02	16.53	17.17	17.68	19.26
	4H	9.38	9.85	10.53	10.99	12.59	16.79	17.26	17.94	18.39	19.99
	6H	9.39	9.79	10.54	10.95	12.54	17.32	17.72	18.48	18.88	20.47
	8H	9.36	9.74	10.51	10.89	12.49	17.48	17.86	18.64	19.01	20.62
	12H	9.31	9.65	10.48	10.81	12.42	17.57	17.91	18.74	19.08	20.69
8H	4H	10.82	11.20	11.97	12.35	13.95	16.83	17.21	17.99	18.36	19.97
	6H	11.05	11.37	12.23	12.56	14.16	17.46	17.77	18.64	18.97	20.57
	8H	11.07	11.34	12.25	12.51	14.14	17.68	17.95	18.86	19.12	20.75
	12H	11.03	11.27	12.22	12.44	14.09	17.82	18.06	19.01	19.23	20.88
12H	4H	10.96	11.30	12.13	12.46	14.07	16.78	17.12	17.95	18.28	19.89
	6H	11.31	11.58	12.49	12.76	14.38	17.44	17.71	18.62	18.89	20.51
	8H	11.37	11.61	12.56	12.78	14.44	17.67	17.91	18.85	19.08	20.73