

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: P937077

Luminaire Tested: SQ4-FB-075U-050D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937077
REPORT IS A COMBINATION OF REPORTS P933493 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-075U-050D-B2750-1D-UNV-STD-W-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

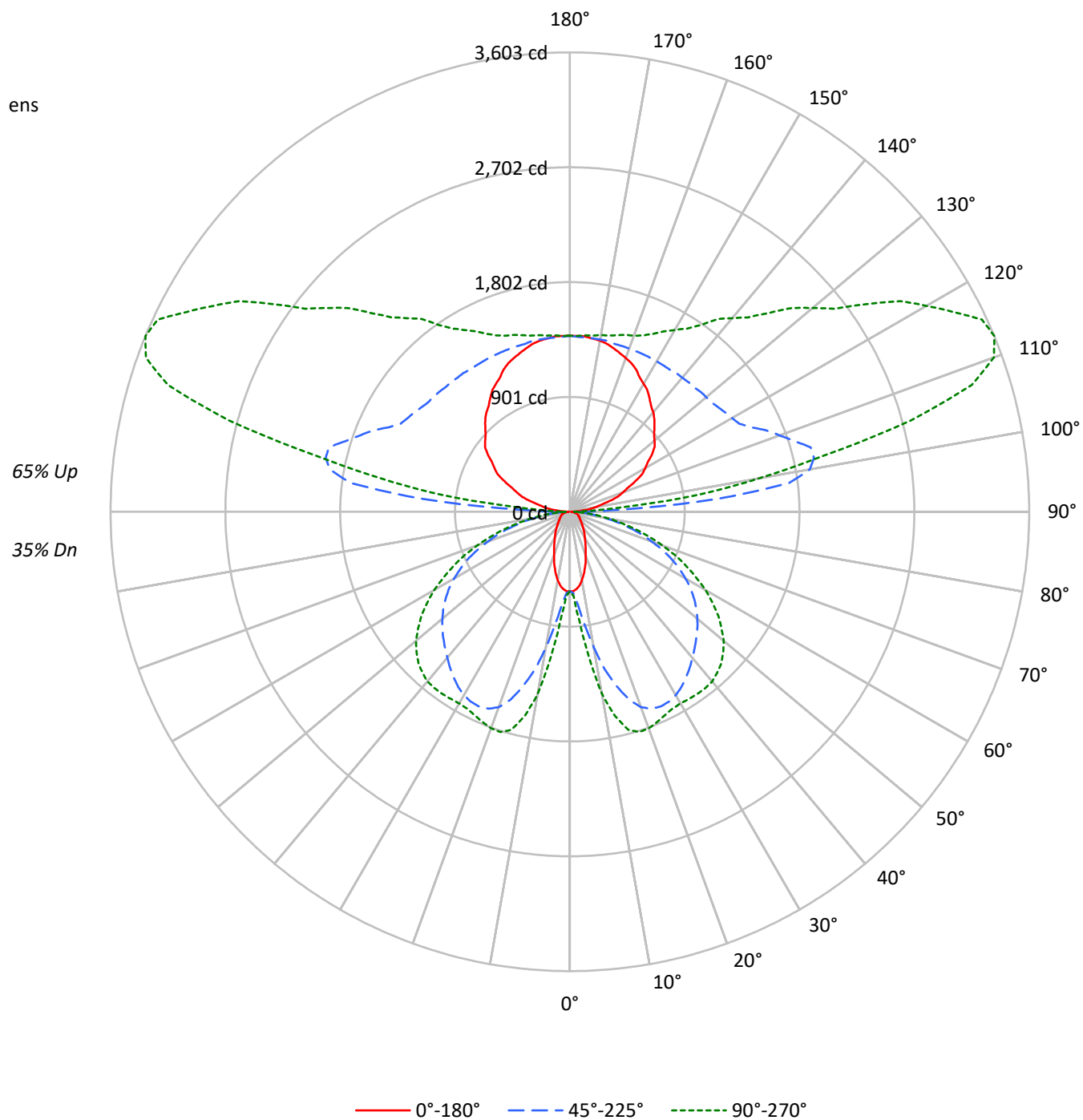
Lumens per Lamp: N/A
Luminaire Lumens: 13773.7 lumens
Efficiency: N/A
Efficacy: 133.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 103.2
Input Voltage (V): NR
Input Current (Ain): 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: P937077

CATALOG NUMBER: SQ4-FB-075U-050D-B2750-1D-UNV-STD-W-12-2700K

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35		
1	94	90	86	82	85	81	78	75	65	63	61	50	49	47	37	36	35	29		
2	85	78	72	66	77	70	65	61	57	53	50	44	41	39	32	30	29	23		
3	77	68	61	55	70	62	55	50	49	45	41	38	35	32	28	26	24	19		
4	71	60	52	46	63	54	47	42	44	39	35	34	30	27	25	22	20	16		
5	65	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14		
6	59	47	39	33	53	43	36	31	35	29	25	27	23	20	20	17	15	12		
7	55	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10		
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	14	12	9		
9	47	35	27	22	42	32	25	20	26	21	17	20	16	14	15	12	10	8		
10	44	32	24	20	39	29	22	18	23	18	15	18	15	12	14	11	9	7		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1928	1928	1928
5°	1884	2229	2591
10°	1710	3250	4296
15°	1454	4247	5187
20°	1184	4922	5287
25°	988	5152	5179
30°	834	5186	5169
35°	737	5101	5303
40°	643	4991	5441
45°	583	4910	5463
50°	535	4838	5372
55°	513	4732	5134
60°	526	4526	4758
65°	548	4213	4242
70°	584	3676	3583
75°	650	3000	2796
80°	716	2083	1884
85°	648	1107	965

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5463 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.6	0.6
10°-20°	357.3	2.6
20°-30°	625.0	4.5
30°-40°	804.6	5.8
40°-50°	898.7	6.5
50°-60°	860.7	6.2
60°-70°	682.1	5.0
70°-80°	401.1	2.9
80°-90°	116.7	0.8
90°-100°	672.7	4.9
100°-110°	1768.7	12.8
110°-120°	1833.9	13.3
120°-130°	1471.0	10.7
130°-140°	1154.2	8.4
140°-150°	885.9	6.4
150°-160°	638.0	4.6
160°-170°	390.4	2.8
170°-180°	131.9	1.0
0°-30°	1063.0	7.7
0°-40°	1867.5	13.6
0°-60°	3627.0	26.3
0°-90°	4826.9	35.0
90°-120°	4275.3	31.0
90°-150°	7786.5	56.5
90°-180°	8947.0	65.0
0°-180°	13773.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	623	623	623	623	623	
5°	607	651	734	830	860	56
15°	455	840	1415	1716	1770	127
25°	291	952	1685	1760	1762	134
35°	196	910	1587	1678	1744	123
45°	134	726	1403	1607	1680	104
55°	96	461	1190	1383	1421	88
65°	76	244	884	994	1008	75
75°	56	150	485	533	535	59
85°	20	46	120	132	134	21
90°	9	26	70	35	35	9
95°	89	348	1159	597	407	99
105°	319	483	1955	2969	2770	338
115°	566	687	1566	3124	3566	559
125°	787	883	1425	2407	2840	699
135°	938	1033	1380	1943	2204	726
145°	1088	1158	1362	1658	1788	682
155°	1230	1264	1362	1496	1539	565
165°	1327	1345	1362	1416	1434	375
175°	1380	1380	1372	1389	1389	131
180°	1380	1380	1380	1380	1380	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3
2.5°	623.3	623.3	627.3	629.3	633.3	635.2	639.3	643.3	655.4	657.4	661.3
5°	607.3	615.2	641.3	651.3	679.4	717.4	733.5	759.5	813.6	829.7	839.7
7.5°	583.2	601.2	665.3	681.4	751.6	851.8	893.8	950.0	1036.1	1078.2	1112.2
10°	545.1	583.2	697.4	735.5	849.7	1002.1	1080.2	1158.3	1288.6	1346.8	1368.8
12.5°	503.0	565.1	731.5	783.6	947.9	1170.4	1264.6	1350.8	1499.1	1577.3	1589.2
15°	455.0	539.1	763.5	839.7	1052.2	1310.6	1414.9	1521.1	1659.4	1715.5	1729.6
17.5°	412.8	519.0	793.6	873.8	1132.4	1436.9	1543.1	1631.3	1743.6	1781.6	1791.7
20°	360.8	487.0	813.6	917.9	1216.5	1529.2	1631.3	1699.5	1775.7	1799.7	1803.7
22.5°	322.7	452.9	825.7	933.9	1272.6	1585.2	1671.4	1725.6	1777.7	1785.6	1787.6
25°	290.6	414.8	823.7	952.0	1320.7	1619.3	1685.4	1725.6	1755.5	1759.6	1759.6
27.5°	260.6	372.8	815.6	956.0	1356.8	1627.4	1679.5	1707.4	1721.5	1729.6	1729.6
30°	234.5	332.7	795.6	947.9	1372.8	1619.3	1661.4	1675.5	1689.4	1701.5	1707.4
32.5°	214.4	294.6	765.5	931.9	1374.8	1599.3	1629.4	1637.3	1657.3	1685.4	1695.5
35°	196.4	256.6	731.5	909.8	1362.8	1567.2	1587.2	1595.3	1635.3	1677.5	1691.4
37.5°	178.4	228.5	687.4	871.8	1344.7	1529.2	1543.1	1557.1	1619.3	1669.4	1685.4
40°	160.4	204.4	635.2	829.7	1316.7	1483.0	1495.1	1517.1	1599.3	1657.3	1673.4
42.5°	146.3	184.4	579.2	785.6	1280.7	1431.0	1449.0	1481.1	1575.2	1637.3	1655.4
45°	134.3	164.3	519.0	725.5	1234.5	1376.8	1402.9	1447.0	1547.2	1607.2	1623.3
47.5°	122.2	150.3	457.0	663.3	1184.4	1322.7	1356.8	1406.8	1509.0	1567.2	1581.2
50°	112.2	136.3	394.8	597.2	1130.3	1264.6	1304.7	1356.8	1461.0	1515.1	1533.1
52.5°	104.2	124.3	336.6	531.1	1068.2	1204.5	1250.6	1304.7	1402.9	1455.0	1467.0
55°	96.2	114.2	286.5	460.9	1004.1	1140.3	1190.4	1242.5	1338.7	1382.8	1390.8
57.5°	92.2	106.2	244.5	394.8	935.9	1068.2	1124.3	1172.4	1262.5	1296.7	1304.7
60°	86.2	100.2	212.4	338.7	861.7	1000.1	1048.2	1096.2	1172.4	1200.5	1206.5
62.5°	80.2	96.2	188.3	284.6	785.6	919.9	968.0	1012.0	1076.2	1096.2	1104.3
65°	76.2	92.2	170.3	244.5	707.5	835.7	883.9	921.9	974.0	994.0	998.0
67.5°	72.1	88.1	156.3	210.5	629.3	751.6	787.6	823.7	863.7	883.9	885.8
70°	66.1	84.2	144.3	186.4	549.1	655.4	685.4	723.5	755.6	765.5	771.6
72.5°	62.2	78.2	136.3	168.3	466.9	563.1	591.2	613.2	641.3	651.3	651.3
75°	56.1	70.1	128.3	150.3	382.8	460.9	485.0	507.1	529.1	533.1	527.1
77.5°	50.1	62.2	110.3	126.3	298.6	364.7	384.8	396.8	414.8	418.8	420.8
80°	42.1	54.1	86.2	98.2	216.4	268.5	282.6	292.6	308.7	308.7	312.6
82.5°	32.1	42.1	62.2	70.1	146.3	184.4	196.4	202.4	212.4	212.4	212.4
85°	20.0	26.1	40.0	46.1	88.1	112.2	120.2	122.2	130.3	132.3	132.3
87.5°	10.1	14.0	26.1	28.1	46.1	58.2	58.2	62.2	62.2	60.2	58.2
90°	9.3	16.6	24.0	25.9	40.7	60.6	70.4	62.5	46.9	35.2	35.2
92.5°	37.1	100.0	163.0	178.8	251.3	348.0	396.4	347.4	249.5	176.0	169.0
95°	88.9	204.2	319.5	348.3	618.4	978.7	1158.7	1034.0	784.5	597.4	576.2
97.5°	153.8	255.5	357.2	382.6	833.1	1433.6	1733.9	1655.1	1497.4	1379.2	1338.8
100°	203.8	296.0	388.2	411.2	911.1	1577.6	1910.8	1916.6	1928.2	1936.8	1888.7
102.5°	246.4	332.5	418.4	439.9	946.9	1622.9	1960.9	2061.3	2262.2	2412.9	2371.8
105°	318.6	391.5	464.3	482.6	973.5	1628.1	1955.3	2180.5	2630.9	2968.7	2946.6
107.5°	392.7	460.6	528.6	545.6	978.5	1555.7	1844.2	2158.3	2786.5	3257.6	3263.0
110°	442.7	504.1	565.4	580.8	971.0	1491.4	1751.6	2102.8	2805.0	3331.7	3354.7

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	491.8	550.3	608.8	623.4	971.4	1435.3	1667.3	2026.7	2745.5	3284.5	3319.9
115°	565.9	619.8	673.8	687.2	980.3	1371.0	1566.3	1912.5	2604.9	3124.3	3173.4
117.5°	639.1	688.1	737.0	749.3	998.5	1330.7	1496.8	1809.2	2434.1	2902.8	2957.3
120°	681.8	727.9	773.9	785.4	1013.3	1317.1	1469.0	1754.5	2325.5	2753.7	2806.6
122.5°	723.4	769.9	816.4	828.1	1034.6	1310.0	1447.7	1704.8	2219.0	2604.6	2656.8
125°	787.3	829.8	872.2	882.8	1063.3	1304.2	1424.6	1643.0	2079.7	2407.3	2455.4
127.5°	839.2	882.1	924.9	935.5	1092.1	1300.8	1405.2	1592.7	1967.7	2249.0	2289.5
130°	867.0	913.1	959.1	970.7	1113.0	1302.8	1397.7	1564.6	1898.5	2148.9	2186.3
132.5°	895.7	941.8	987.8	999.4	1130.0	1304.2	1391.2	1540.6	1839.5	2063.7	2097.3
135°	938.3	980.3	1022.3	1032.8	1148.6	1303.0	1380.2	1505.3	1755.5	1943.3	1972.2
137.5°	981.9	1023.4	1065.0	1075.4	1176.4	1310.9	1378.3	1484.0	1695.7	1854.4	1878.1
140°	1017.9	1056.2	1094.5	1104.1	1193.3	1312.3	1371.8	1463.2	1646.0	1783.0	1805.2
142.5°	1045.7	1081.2	1116.5	1125.4	1207.6	1317.0	1371.8	1452.1	1612.6	1733.0	1752.1
145°	1088.3	1119.2	1150.1	1157.8	1226.1	1317.0	1362.5	1428.2	1559.5	1658.0	1672.5
147.5°	1131.0	1161.0	1191.1	1198.6	1253.3	1326.1	1362.5	1414.2	1517.5	1595.0	1606.9
150°	1158.7	1185.9	1213.1	1219.9	1267.4	1330.9	1362.5	1406.2	1493.4	1558.8	1568.5
152.5°	1187.4	1208.0	1228.6	1233.7	1276.7	1333.9	1362.5	1399.8	1474.3	1530.2	1537.4
155°	1230.1	1245.3	1260.5	1264.3	1297.1	1340.7	1362.5	1392.2	1451.5	1495.9	1500.8
157.5°	1261.5	1276.4	1291.2	1294.9	1317.4	1347.5	1362.5	1385.5	1431.7	1466.2	1469.6
160°	1282.8	1294.4	1306.0	1308.8	1326.8	1350.6	1362.5	1382.2	1421.8	1451.5	1453.5
162.5°	1304.2	1312.8	1321.4	1323.6	1336.5	1353.9	1362.5	1379.2	1412.5	1437.5	1439.4
165°	1327.4	1335.1	1342.9	1344.9	1350.8	1358.6	1362.5	1374.5	1398.3	1416.2	1418.2
167.5°	1348.6	1352.3	1356.1	1357.0	1361.9	1368.5	1371.8	1379.6	1395.2	1406.9	1407.7
170°	1362.5	1366.2	1370.0	1370.9	1371.2	1371.6	1371.8	1379.6	1395.2	1406.9	1406.9
172.5°	1369.9	1370.7	1371.6	1371.8	1371.8	1371.8	1371.8	1378.0	1390.3	1399.6	1398.9
175°	1380.2	1380.2	1380.2	1380.2	1377.4	1373.7	1371.8	1375.7	1383.5	1389.4	1389.4
177.5°	1380.2	1380.2	1380.2	1380.2	1378.0	1375.1	1373.7	1376.8	1382.9	1387.5	1386.7
180°	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	623.3	623.3
2.5°	665.3	661.3
5°	855.8	859.7
7.5°	1152.4	1150.4
10°	1432.9	1451.0
12.5°	1637.3	1641.3
15°	1761.6	1769.6
17.5°	1809.7	1811.7
20°	1811.7	1807.7
22.5°	1789.6	1785.6
25°	1763.6	1761.6
27.5°	1739.5	1741.6
30°	1729.6	1735.5
32.5°	1729.6	1739.5
35°	1733.5	1743.6
37.5°	1731.5	1743.6
40°	1723.5	1737.5
42.5°	1701.5	1711.5
45°	1667.4	1679.5
47.5°	1623.3	1631.3
50°	1567.2	1575.2
52.5°	1497.1	1499.1
55°	1412.9	1420.9
57.5°	1322.7	1324.7
60°	1222.5	1228.5
62.5°	1116.3	1116.3
65°	1004.1	1008.1
67.5°	887.8	897.8
70°	769.6	771.6
72.5°	653.4	653.4
75°	533.1	535.1
77.5°	418.8	418.8
80°	310.7	312.6
82.5°	214.4	218.4
85°	134.3	134.3
87.5°	62.2	56.1
90°	35.2	35.2
92.5°	141.0	113.0
95°	491.4	406.7
97.5°	1177.5	1016.1
100°	1696.5	1504.3
102.5°	2207.0	2042.4
105°	2858.0	2769.5
107.5°	3284.4	3305.8
110°	3447.0	3539.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3461.5	3603.1
115°	3369.7	3566.1
117.5°	3175.0	3392.9
120°	3018.3	3229.8
122.5°	2865.5	3074.3
125°	2647.7	2839.9
127.5°	2451.8	2613.9
130°	2336.2	2486.1
132.5°	2231.4	2365.7
135°	2087.9	2203.6
137.5°	1972.7	2067.4
140°	1893.7	1982.1
142.5°	1828.3	1904.4
145°	1730.1	1787.6
147.5°	1654.7	1702.5
150°	1607.2	1646.0
152.5°	1566.7	1595.9
155°	1520.1	1539.4
157.5°	1483.2	1496.8
160°	1461.2	1469.0
162.5°	1446.8	1454.3
165°	1426.0	1433.8
167.5°	1411.1	1414.4
170°	1406.9	1406.9
172.5°	1396.0	1393.1
175°	1389.4	1389.4
177.5°	1383.4	1380.2
180°	1380.2	1380.2

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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	1.74	2.51	2.81	3.58	5.05	14.93	15.70	16.00	16.77	18.24
	3H	2.44	3.12	3.52	4.21	5.69	16.77	17.46	17.85	18.54	20.03
	4H	2.73	3.38	3.82	4.47	5.96	17.41	18.07	18.50	19.15	20.64
	6H	2.98	3.58	4.08	4.67	6.17	17.84	18.44	18.94	19.53	21.04
	8H	3.04	3.61	4.14	4.72	6.22	17.96	18.54	19.07	19.64	21.14
	12H	3.06	3.60	4.16	4.70	6.22	18.03	18.58	19.14	19.67	21.20
4H	2H	8.95	9.61	10.05	10.69	12.18	15.19	15.85	16.29	16.93	18.42
	3H	10.51	11.06	11.61	12.17	13.67	17.24	17.78	18.34	18.89	20.40
	4H	10.60	11.10	11.71	12.20	13.73	18.00	18.50	19.11	19.61	21.13
	6H	10.61	11.04	11.72	12.16	13.68	18.54	18.97	19.66	20.10	21.61
	8H	10.58	10.98	11.70	12.10	13.63	18.70	19.10	19.82	20.22	21.76
	12H	10.53	10.90	11.66	12.03	13.56	18.79	19.16	19.93	20.29	21.83
8H	4H	12.04	12.44	13.16	13.56	15.09	18.05	18.46	19.17	19.57	21.11
	6H	12.28	12.61	13.42	13.77	15.30	18.68	19.02	19.82	20.18	21.71
	8H	12.29	12.59	13.44	13.73	15.28	18.90	19.20	20.05	20.34	21.89
	12H	12.26	12.51	13.41	13.65	15.24	19.05	19.30	20.20	20.44	22.03
12H	4H	12.18	12.55	13.31	13.67	15.21	18.00	18.37	19.14	19.50	21.04
	6H	12.54	12.83	13.68	13.97	15.52	18.66	18.96	19.81	20.10	21.65
	8H	12.60	12.86	13.75	13.99	15.58	18.89	19.15	20.04	20.29	21.87