

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: P937912

Luminaire Tested: SQ4-FB-125U-075D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937912
REPORT IS A COMBINATION OF REPORTS P933614 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-075D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

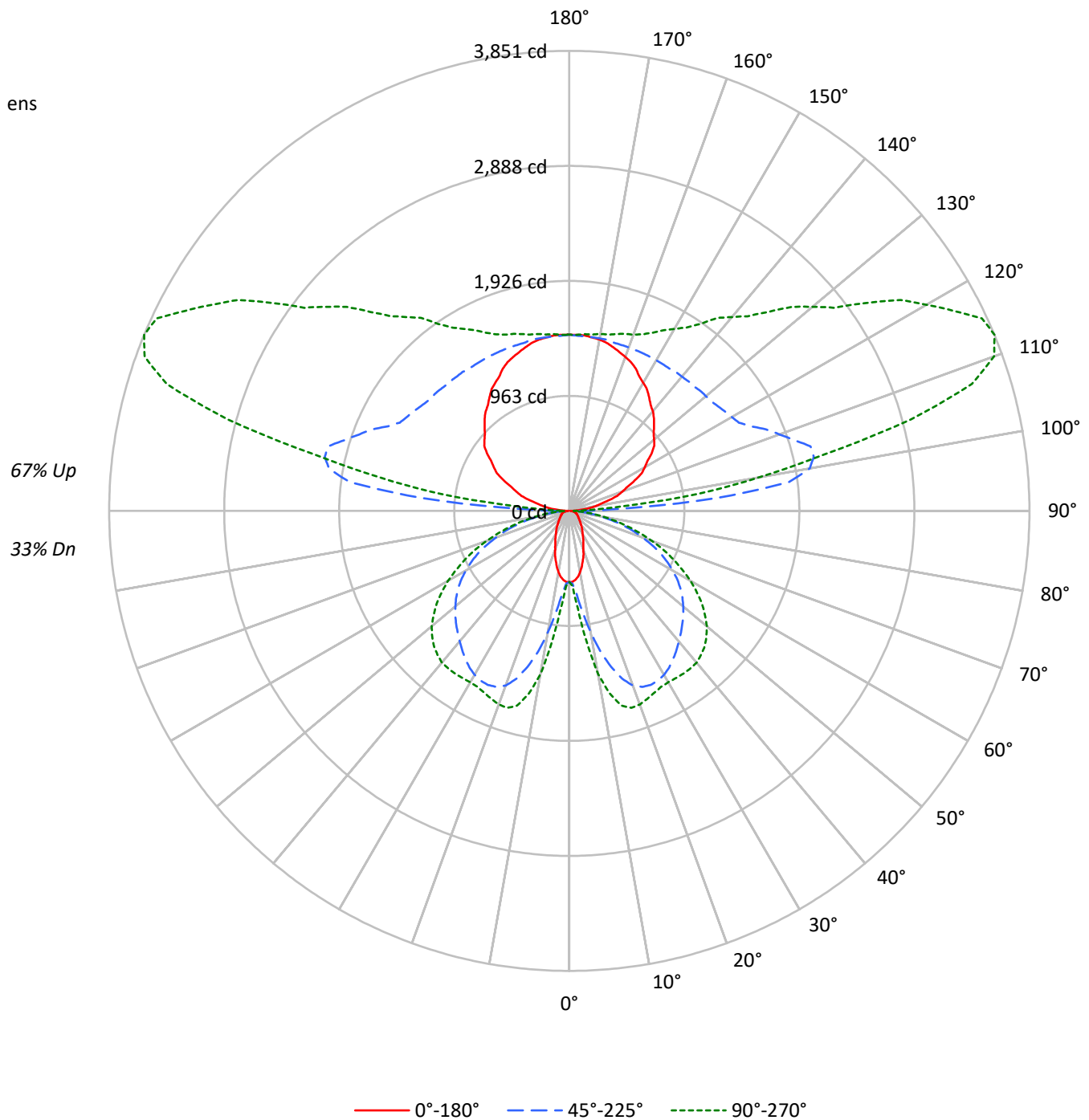
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14167.9 lumens
Efficiency: N/A
Efficacy: 127.4 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): 111.2
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	74	74	74	56	56	56	40	40	40	33				33
1	94	89	85	82	84	80	77	74	64	62	60	49	47	46	35	34	33	27				27
2	85	77	71	66	76	70	65	60	55	52	49	42	40	38	30	29	27	22				22
3	77	68	60	54	69	61	55	50	49	44	40	37	34	31	26	24	23	18				18
4	70	59	52	46	63	54	47	42	43	38	34	33	29	26	23	21	19	15				15
5	64	53	45	39	57	48	41	35	38	33	29	29	25	23	21	18	16	13				13
6	59	47	39	33	53	42	35	30	34	29	25	26	22	19	19	16	14	11				11
7	54	42	34	29	49	38	31	26	31	25	22	23	20	17	17	14	12	10				10
8	50	38	30	25	45	34	28	23	28	23	19	21	18	15	15	13	11	8				8
9	47	34	27	22	42	31	25	20	25	20	17	19	16	13	14	12	10	7				7
10	43	31	24	19	39	28	22	18	23	18	15	18	14	12	13	10	9	7				7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2759	2759	2759
5°	2695	3189	3708
10°	2445	4648	6148
15°	2078	6073	7424
20°	1692	7038	7566
25°	1411	7365	7412
30°	1190	7411	7398
35°	1052	7288	7589
40°	917	7128	7787
45°	830	7011	7818
50°	762	6906	7688
55°	730	6751	7348
60°	747	6455	6810
65°	777	6004	6069
70°	828	5236	5128
75°	916	4269	4002
80°	1003	2961	2697
85°	890	1570	1380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7818 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.9	0.5
10°-20°	340.9	2.4
20°-30°	596.3	4.2
30°-40°	767.6	5.4
40°-50°	857.4	6.1
50°-60°	821.2	5.8
60°-70°	650.8	4.6
70°-80°	382.7	2.7
80°-90°	111.9	0.8
90°-100°	719.0	5.1
100°-110°	1890.3	13.3
110°-120°	1960.0	13.8
120°-130°	1572.2	11.1
130°-140°	1233.6	8.7
140°-150°	946.8	6.7
150°-160°	681.9	4.8
160°-170°	417.2	2.9
170°-180°	141.0	1.0
0°-30°	1014.2	7.2
0°-40°	1781.8	12.6
0°-60°	3460.5	24.4
0°-90°	4605.9	32.5
90°-120°	4569.3	32.3
90°-150°	8322.0	58.7
90°-180°	9562.0	67.5
0°-180°	14167.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	579	621	700	792	820	53
15°	434	801	1350	1637	1688	121
25°	277	908	1608	1679	1681	128
35°	187	868	1514	1600	1664	117
45°	128	692	1338	1534	1602	99
55°	92	440	1136	1319	1356	84
65°	73	233	843	948	962	72
75°	54	143	463	509	510	56
85°	19	44	115	126	128	20
90°	10	28	75	38	38	9
95°	95	372	1238	638	435	106
105°	340	516	2090	3173	2960	361
115°	605	734	1674	3339	3811	597
125°	842	943	1522	2573	3035	747
135°	1003	1104	1475	2077	2355	776
145°	1163	1237	1456	1772	1911	729
155°	1315	1351	1456	1599	1645	604
165°	1419	1437	1456	1514	1532	400
175°	1475	1475	1466	1485	1485	140
180°	1475	1475	1475	1475	1475	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6
2.5°	594.6	594.6	598.5	600.4	604.2	606.1	609.9	613.8	625.2	627.1	631.0
5°	579.3	587.0	611.8	621.4	648.2	684.5	699.8	724.6	776.3	791.6	801.1
7.5°	556.4	573.6	634.8	650.1	717.0	812.6	852.8	906.3	988.5	1028.7	1061.2
10°	520.1	556.4	665.4	701.7	810.7	956.0	1030.6	1105.2	1229.5	1285.0	1306.0
12.5°	479.9	539.2	697.9	747.6	904.4	1116.7	1206.6	1288.8	1430.3	1504.8	1516.3
15°	434.0	514.3	728.5	801.1	1003.8	1250.5	1350.0	1451.3	1583.2	1636.8	1650.2
17.5°	393.9	495.2	757.2	833.6	1080.3	1371.0	1472.3	1556.5	1663.5	1699.9	1709.4
20°	344.2	464.6	776.3	875.7	1160.7	1459.0	1556.5	1621.5	1694.1	1717.1	1720.9
22.5°	307.8	432.1	787.7	891.0	1214.2	1512.5	1594.7	1646.3	1696.0	1703.7	1705.6
25°	277.2	395.8	785.8	908.2	1260.1	1545.0	1608.1	1646.3	1675.0	1678.8	1678.8
27.5°	248.6	355.6	778.2	912.0	1294.5	1552.6	1602.4	1629.1	1642.5	1650.2	1650.2
30°	223.7	317.4	759.1	904.4	1309.8	1545.0	1585.1	1598.5	1611.9	1623.4	1629.1
32.5°	204.6	281.1	730.4	889.1	1311.7	1525.9	1554.6	1562.2	1581.3	1608.1	1617.6
35°	187.4	244.7	697.9	868.0	1300.3	1495.3	1514.4	1522.0	1560.3	1600.4	1613.8
37.5°	170.2	218.0	655.8	831.7	1283.0	1459.0	1472.3	1485.7	1545.0	1592.8	1608.1
40°	153.0	195.0	606.1	791.6	1256.3	1415.0	1426.4	1447.5	1525.9	1581.3	1596.6
42.5°	139.6	175.9	552.6	749.5	1221.9	1365.3	1382.5	1413.1	1502.9	1562.2	1579.4
45°	128.1	156.8	495.2	692.1	1177.9	1313.6	1338.5	1380.6	1476.2	1533.5	1548.8
47.5°	116.6	143.4	435.9	632.9	1130.1	1262.0	1294.5	1342.3	1439.8	1495.3	1508.7
50°	107.1	130.0	376.7	569.8	1078.4	1206.6	1244.8	1294.5	1393.9	1445.6	1462.8
52.5°	99.4	118.5	321.2	506.7	1019.1	1149.2	1193.2	1244.8	1338.5	1388.2	1399.7
55°	91.8	109.0	273.4	439.8	957.9	1088.0	1135.8	1185.5	1277.3	1319.4	1327.0
57.5°	88.0	101.3	233.3	376.7	892.9	1019.1	1072.6	1118.6	1204.7	1237.2	1244.8
60°	82.2	95.6	202.7	323.1	822.2	954.1	1000.0	1045.9	1118.6	1145.4	1151.1
62.5°	76.5	91.8	179.7	271.5	749.5	877.6	923.5	965.6	1026.7	1045.9	1053.5
65°	72.7	88.0	162.5	233.3	674.9	797.3	843.2	879.5	929.2	948.4	952.2
67.5°	68.8	84.1	149.1	200.8	600.4	717.0	751.4	785.8	824.1	843.2	845.1
70°	63.1	80.3	137.7	177.8	523.9	625.2	653.9	690.2	720.8	730.4	736.1
72.5°	59.3	74.6	130.0	160.6	445.5	537.3	564.0	585.1	611.8	621.4	621.4
75°	53.5	66.9	122.4	143.4	365.2	439.8	462.7	483.7	504.8	508.6	502.9
77.5°	47.8	59.3	105.2	120.5	284.9	348.0	367.1	378.6	395.8	399.6	401.5
80°	40.2	51.6	82.2	93.7	206.5	256.2	269.6	279.2	294.4	294.4	298.3
82.5°	30.6	40.2	59.3	66.9	139.6	175.9	187.4	193.1	202.7	202.7	202.7
85°	19.1	24.9	38.2	44.0	84.1	107.1	114.7	116.6	124.3	126.2	126.2
87.5°	9.6	13.4	24.9	26.8	44.0	55.4	55.4	59.3	59.3	57.4	55.4
90°	9.9	17.9	25.7	27.7	43.6	64.7	75.2	66.8	50.1	37.6	37.6
92.5°	39.6	106.9	174.3	191.1	268.6	372.0	423.7	371.3	266.6	188.0	180.6
95°	95.0	218.3	341.5	372.3	661.0	1046.0	1238.4	1105.1	838.5	638.5	615.9
97.5°	164.3	273.0	381.7	408.9	890.3	1532.3	1853.2	1769.0	1600.4	1474.1	1430.9
100°	217.8	316.3	414.9	439.6	973.8	1686.1	2042.3	2048.4	2060.8	2070.0	2018.7
102.5°	263.3	355.2	447.2	470.3	1012.1	1734.6	2095.7	2203.1	2417.8	2578.8	2534.8
105°	340.5	418.4	496.3	515.8	1040.4	1740.0	2089.8	2330.4	2811.8	3172.8	3149.2
107.5°	419.8	492.3	564.9	583.1	1045.7	1662.6	1971.0	2306.7	2978.1	3481.7	3487.4
110°	473.2	538.8	604.4	620.7	1037.8	1593.9	1872.0	2247.4	2997.9	3560.8	3585.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	525.7	588.1	650.7	666.2	1038.1	1534.0	1781.9	2166.0	2934.2	3510.3	3548.2
115°	604.9	662.5	720.1	734.5	1047.7	1465.3	1674.1	2044.0	2784.1	3339.1	3391.6
117.5°	683.1	735.5	787.7	800.8	1067.2	1422.2	1599.8	1933.7	2601.6	3102.5	3160.7
120°	728.6	777.9	827.1	839.5	1083.0	1407.7	1570.0	1875.2	2485.4	2943.1	2999.6
122.5°	773.1	822.8	872.5	885.0	1105.7	1400.1	1547.3	1822.0	2371.6	2783.8	2839.5
125°	841.5	886.8	932.1	943.4	1136.4	1393.8	1522.5	1756.0	2222.8	2572.9	2624.2
127.5°	896.9	942.7	988.4	999.9	1167.2	1390.2	1501.8	1702.2	2103.0	2403.6	2446.9
130°	926.6	975.9	1025.1	1037.5	1189.6	1392.4	1493.8	1672.2	2029.1	2296.7	2336.8
132.5°	957.2	1006.6	1055.8	1068.1	1207.7	1393.8	1486.9	1646.6	1966.0	2205.6	2241.4
135°	1002.8	1047.7	1092.6	1103.8	1227.5	1392.5	1475.0	1608.8	1876.2	2076.9	2107.8
137.5°	1049.3	1093.8	1138.2	1149.3	1257.2	1401.1	1473.0	1586.1	1812.3	1981.9	2007.2
140°	1087.9	1128.8	1169.8	1180.0	1275.4	1402.5	1466.1	1563.8	1759.1	1905.7	1929.3
142.5°	1117.7	1155.5	1193.3	1202.7	1290.5	1407.6	1466.1	1551.9	1723.5	1852.2	1872.5
145°	1163.2	1196.1	1229.2	1237.4	1310.4	1407.6	1456.2	1526.3	1666.8	1772.0	1787.4
147.5°	1208.8	1240.9	1273.0	1281.0	1339.5	1417.3	1456.2	1511.4	1621.9	1704.7	1717.5
150°	1238.4	1267.5	1296.5	1303.8	1354.6	1422.3	1456.2	1502.8	1596.1	1666.1	1676.4
152.5°	1269.1	1291.1	1313.1	1318.6	1364.5	1425.6	1456.2	1496.0	1575.7	1635.4	1643.3
155°	1314.7	1330.9	1347.2	1351.3	1386.3	1432.9	1456.2	1487.9	1551.3	1598.8	1604.0
157.5°	1348.3	1364.1	1380.0	1383.9	1408.0	1440.1	1456.2	1480.8	1530.1	1567.1	1570.7
160°	1371.1	1383.4	1395.8	1398.8	1417.9	1443.5	1456.2	1477.3	1519.6	1551.2	1553.3
162.5°	1393.8	1403.0	1412.3	1414.6	1428.5	1446.9	1456.2	1474.0	1509.6	1536.4	1538.4
165°	1418.6	1427.0	1435.3	1437.4	1443.7	1452.0	1456.2	1469.0	1494.5	1513.6	1515.7
167.5°	1441.4	1445.3	1449.3	1450.3	1455.5	1462.6	1466.1	1474.4	1491.2	1503.7	1504.6
170°	1456.2	1460.2	1464.2	1465.2	1465.5	1465.9	1466.1	1474.4	1491.2	1503.7	1503.7
172.5°	1464.1	1465.0	1465.9	1466.1	1466.1	1466.1	1466.1	1472.7	1485.9	1495.9	1495.1
175°	1475.0	1475.0	1475.0	1475.0	1472.0	1468.1	1466.1	1470.3	1478.6	1485.0	1485.0
177.5°	1475.0	1475.0	1475.0	1475.0	1472.7	1469.7	1468.1	1471.4	1478.0	1482.9	1482.1
180°	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	594.6	594.6
2.5°	634.8	631.0
5°	816.4	820.2
7.5°	1099.5	1097.6
10°	1367.2	1384.4
12.5°	1562.2	1566.0
15°	1680.7	1688.4
17.5°	1726.6	1728.5
20°	1728.5	1724.7
22.5°	1707.5	1703.7
25°	1682.7	1680.7
27.5°	1659.7	1661.6
30°	1650.2	1655.9
32.5°	1650.2	1659.7
35°	1654.0	1663.5
37.5°	1652.1	1663.5
40°	1644.4	1657.8
42.5°	1623.4	1632.9
45°	1590.9	1602.4
47.5°	1548.8	1556.5
50°	1495.3	1502.9
52.5°	1428.4	1430.3
55°	1348.1	1355.7
57.5°	1262.0	1263.9
60°	1166.4	1172.2
62.5°	1065.0	1065.0
65°	957.9	961.7
67.5°	847.0	856.6
70°	734.2	736.1
72.5°	623.3	623.3
75°	508.6	510.5
77.5°	399.6	399.6
80°	296.4	298.3
82.5°	204.6	208.4
85°	128.1	128.1
87.5°	59.3	53.5
90°	37.6	37.6
92.5°	150.7	120.7
95°	525.2	434.6
97.5°	1258.5	1086.0
100°	1813.1	1607.7
102.5°	2358.8	2182.8
105°	3054.5	2960.0
107.5°	3510.2	3533.1
110°	3684.0	3782.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3699.5	3850.9
115°	3601.4	3811.3
117.5°	3393.4	3626.2
120°	3225.8	3451.9
122.5°	3062.6	3285.7
125°	2829.8	3035.2
127.5°	2620.3	2793.6
130°	2496.9	2657.0
132.5°	2384.9	2528.3
135°	2231.5	2355.1
137.5°	2108.4	2209.6
140°	2023.9	2118.5
142.5°	1953.9	2035.3
145°	1849.0	1910.6
147.5°	1768.5	1819.6
150°	1717.8	1759.1
152.5°	1674.4	1705.7
155°	1624.6	1645.3
157.5°	1585.2	1599.8
160°	1561.6	1570.0
162.5°	1546.3	1554.3
165°	1524.1	1532.5
167.5°	1508.1	1511.6
170°	1503.7	1503.7
172.5°	1491.9	1488.9
175°	1485.0	1485.0
177.5°	1478.5	1475.0
180°	1475.0	1475.0



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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	2.67	3.42	3.76	4.51	6.00	15.85	16.59	16.94	17.68	19.18
	3H	3.37	4.03	4.46	5.13	6.65	17.68	18.35	18.77	19.45	20.96
	4H	3.66	4.29	4.77	5.39	6.92	18.32	18.95	19.42	20.05	21.58
	6H	3.90	4.49	5.02	5.59	7.13	18.74	19.33	19.86	20.43	21.96
	8H	3.97	4.52	5.09	5.64	7.17	18.86	19.42	19.98	20.54	22.06
	12H	3.98	4.51	5.11	5.62	7.17	18.92	19.45	20.05	20.57	22.12
4H	2H	9.87	10.51	10.98	11.61	13.13	16.11	16.74	17.22	17.84	19.36
	3H	11.43	11.96	12.55	13.08	14.62	18.14	18.67	19.26	19.80	21.33
	4H	11.52	12.00	12.64	13.12	14.68	18.90	19.39	20.03	20.51	22.06
	6H	11.52	11.94	12.65	13.08	14.62	19.44	19.86	20.57	21.00	22.54
	8H	11.49	11.89	12.63	13.02	14.58	19.60	19.99	20.73	21.12	22.68
	12H	11.44	11.80	12.59	12.94	14.51	19.68	20.04	20.83	21.18	22.75
8H	4H	12.95	13.34	14.08	14.47	16.04	18.95	19.35	20.09	20.48	22.04
	6H	13.19	13.51	14.34	14.68	16.24	19.58	19.90	20.73	21.08	22.63
	8H	13.20	13.49	14.36	14.64	16.22	19.80	20.08	20.96	21.23	22.81
	12H	13.17	13.42	14.33	14.57	16.18	19.93	20.18	21.10	21.33	22.95
12H	4H	13.09	13.44	14.24	14.59	16.15	18.90	19.26	20.05	20.40	21.97
	6H	13.44	13.73	14.60	14.88	16.46	19.56	19.84	20.72	21.00	22.58
	8H	13.51	13.76	14.67	14.91	16.52	19.78	20.03	20.95	21.18	22.80