

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: P937665

Luminaire Tested: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937665
REPORT IS A COMBINATION OF REPORTS P933583 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

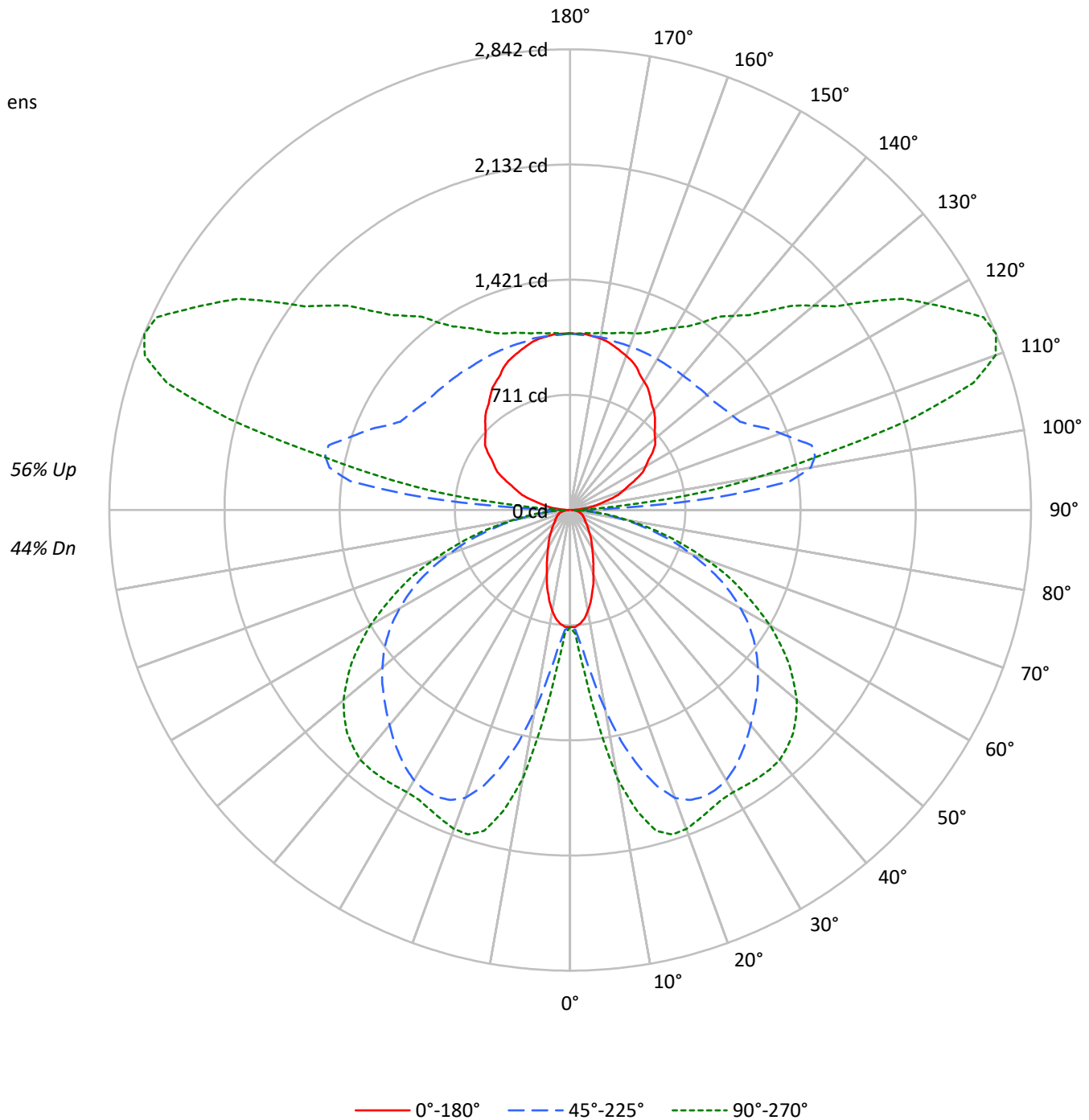
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12645.8 lumens
Efficiency: N/A
Efficacy: 109.0 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: General Diffuse

Input Watts (W): 116
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

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CATALOG NUMBER: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-8-3000K

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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3349	3349	3349
5°	3272	3871	4502
10°	2968	5643	7463
15°	2522	7372	9012
20°	2053	8543	9184
25°	1713	8940	8998
30°	1445	8996	8981
35°	1277	8847	9213
40°	1113	8653	9453
45°	1008	8511	9490
50°	925	8382	9333
55°	885	8195	8919
60°	906	7835	8266
65°	943	7288	7368
70°	1005	6356	6225
75°	1113	5182	4858
80°	1215	3594	3273
85°	1081	1907	1675

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9490 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	0.7
10°-20°	413.8	3.3
20°-30°	723.9	5.7
30°-40°	931.8	7.4
40°-50°	1040.8	8.2
50°-60°	996.9	7.9
60°-70°	790.0	6.2
70°-80°	464.6	3.7
80°-90°	133.2	1.1
90°-100°	530.7	4.2
100°-110°	1395.2	11.0
110°-120°	1446.6	11.4
120°-130°	1160.4	9.2
130°-140°	910.5	7.2
140°-150°	698.8	5.5
150°-160°	503.3	4.0
160°-170°	307.9	2.4
170°-180°	104.0	0.8
0°-30°	1231.1	9.7
0°-40°	2162.9	17.1
0°-60°	4200.6	33.2
0°-90°	5588.4	44.2
90°-120°	3372.5	26.7
90°-150°	6142.2	48.6
90°-180°	7057.0	55.8
0°-180°	12645.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	722	722	722	722	722	
5°	703	754	850	961	996	65
15°	527	972	1639	1987	2050	147
25°	337	1102	1952	2038	2040	155
35°	228	1054	1838	1943	2019	142
45°	156	840	1625	1862	1945	120
55°	111	534	1379	1602	1646	102
65°	88	283	1024	1151	1168	87
75°	65	174	562	617	620	68
85°	23	53	139	153	156	25
90°	7	20	56	28	28	8
95°	70	275	914	471	321	78
105°	251	381	1542	2342	2185	266
115°	446	542	1236	2464	2813	441
125°	621	696	1124	1899	2240	551
135°	740	815	1089	1533	1738	573
145°	858	913	1075	1308	1410	538
155°	970	997	1075	1180	1214	446
165°	1047	1061	1075	1117	1131	295
175°	1089	1089	1082	1096	1096	103
180°	1089	1089	1089	1089	1089	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9
2.5°	721.9	721.9	726.5	728.8	733.5	735.8	740.4	745.1	759.0	761.3	766.0
5°	703.3	712.6	742.8	754.4	786.9	831.0	849.5	879.7	942.3	960.9	972.5
7.5°	675.4	696.3	770.6	789.2	870.4	986.4	1035.2	1100.2	1200.0	1248.8	1288.2
10°	631.3	675.4	807.8	851.9	984.1	1160.5	1251.1	1341.6	1492.4	1559.8	1585.2
12.5°	582.6	654.5	847.2	907.5	1097.9	1355.5	1464.6	1564.4	1736.1	1826.7	1840.6
15°	526.9	624.4	884.4	972.5	1218.6	1518.0	1638.6	1761.7	1921.8	1986.8	2003.1
17.5°	478.1	601.2	919.1	1012.0	1311.4	1664.2	1787.3	1889.3	2019.3	2063.4	2075.1
20°	417.8	564.0	942.3	1063.0	1408.9	1771.0	1889.3	1968.3	2056.5	2084.3	2089.0
22.5°	373.7	524.5	956.3	1081.6	1473.9	1836.0	1935.8	1998.4	2058.8	2068.0	2070.4
25°	336.6	480.4	953.9	1102.5	1529.6	1875.4	1952.0	1998.4	2033.3	2037.9	2037.9
27.5°	301.7	431.7	944.7	1107.2	1571.4	1884.7	1945.1	1977.6	1993.8	2003.1	2003.1
30°	271.6	385.3	921.4	1097.9	1589.9	1875.4	1924.2	1940.4	1956.7	1970.6	1977.6
32.5°	248.4	341.2	886.6	1079.3	1592.3	1852.2	1887.0	1896.3	1919.5	1952.0	1963.6
35°	227.5	297.1	847.2	1053.8	1578.3	1815.1	1838.3	1847.6	1894.0	1942.7	1959.0
37.5°	206.6	264.6	796.1	1009.7	1557.4	1771.0	1787.3	1803.5	1875.4	1933.4	1952.0
40°	185.7	236.8	735.8	960.9	1524.9	1717.6	1731.5	1757.0	1852.2	1919.5	1938.1
42.5°	169.4	213.5	670.8	909.8	1483.2	1657.3	1678.2	1715.2	1824.3	1896.3	1917.2
45°	155.5	190.3	601.2	840.2	1429.8	1594.6	1624.8	1675.8	1791.8	1861.5	1880.1
47.5°	141.6	174.1	529.2	768.2	1371.7	1531.9	1571.4	1629.4	1747.7	1815.1	1831.3
50°	130.0	157.8	457.2	691.7	1309.1	1464.6	1511.0	1571.4	1692.0	1754.8	1775.6
52.5°	120.7	143.9	390.0	615.1	1237.1	1394.9	1448.3	1511.0	1624.8	1685.1	1699.0
55°	111.4	132.3	331.9	533.8	1162.9	1320.7	1378.7	1439.1	1550.5	1601.5	1610.8
57.5°	106.8	123.0	283.2	457.2	1083.9	1237.1	1302.1	1357.9	1462.3	1501.7	1511.0
60°	99.8	116.0	246.0	392.2	998.1	1158.2	1213.9	1269.6	1357.9	1390.4	1397.3
62.5°	92.8	111.4	218.2	329.6	909.8	1065.4	1121.1	1172.2	1246.4	1269.6	1278.9
65°	88.2	106.8	197.3	283.2	819.4	967.9	1023.6	1067.7	1128.0	1151.3	1155.9
67.5°	83.5	102.1	181.0	243.7	728.8	870.4	912.2	953.9	1000.4	1023.6	1025.9
70°	76.6	97.5	167.1	215.9	636.0	759.0	793.8	837.9	875.1	886.6	893.6
72.5°	71.9	90.6	157.8	195.0	540.8	652.2	684.7	710.3	742.8	754.4	754.4
75°	65.0	81.2	148.5	174.1	443.4	533.8	561.7	587.2	612.8	617.4	610.4
77.5°	58.1	71.9	127.6	146.2	345.9	422.5	445.6	459.5	480.4	485.1	487.5
80°	48.7	62.7	99.8	113.7	250.7	311.0	327.3	338.8	357.5	357.5	362.1
82.5°	37.2	48.7	71.9	81.2	169.4	213.5	227.5	234.4	246.0	246.0	246.0
85°	23.2	30.2	46.5	53.4	102.1	130.0	139.3	141.6	150.9	153.2	153.2
87.5°	11.6	16.2	30.2	32.5	53.4	67.3	67.3	71.9	71.9	69.6	67.3
90°	7.3	13.2	19.0	20.5	32.1	47.7	55.5	49.4	37.0	27.8	27.8
92.5°	29.2	79.0	128.7	141.1	198.2	274.6	312.7	274.0	196.8	138.9	133.3
95°	70.2	161.1	252.0	274.7	487.8	771.9	914.0	815.7	618.9	471.3	454.6
97.5°	121.3	201.5	281.8	301.8	657.1	1130.9	1367.8	1305.6	1181.2	1088.0	1056.2
100°	160.7	233.5	306.3	324.4	718.7	1244.5	1507.3	1511.9	1521.0	1527.8	1489.9
102.5°	194.4	262.2	330.1	347.0	746.9	1280.1	1546.8	1626.0	1784.5	1903.4	1870.9
105°	251.4	308.8	366.3	380.7	767.9	1284.3	1542.4	1720.0	2075.2	2341.7	2324.2
107.5°	309.8	363.4	416.9	430.4	771.9	1227.1	1454.7	1702.5	2198.0	2569.6	2573.9
110°	349.2	397.6	446.0	458.1	766.0	1176.4	1381.7	1658.7	2212.6	2628.1	2646.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	387.9	434.1	480.3	491.8	766.2	1132.2	1315.2	1598.7	2165.6	2590.9	2618.8
115°	446.4	489.0	531.5	542.2	773.3	1081.5	1235.5	1508.7	2054.9	2464.5	2503.2
117.5°	504.1	542.8	581.4	591.1	787.7	1049.7	1180.7	1427.2	1920.1	2289.8	2332.8
120°	537.8	574.1	610.5	619.6	799.3	1039.0	1158.8	1384.0	1834.4	2172.2	2213.9
122.5°	570.6	607.3	644.1	653.2	816.1	1033.3	1142.0	1344.8	1750.4	2054.6	2095.8
125°	621.0	654.5	688.0	696.3	838.8	1028.8	1123.7	1296.0	1640.6	1899.0	1936.9
127.5°	662.0	695.7	729.5	737.9	861.4	1026.1	1108.4	1256.3	1552.1	1774.0	1806.0
130°	683.8	720.2	756.6	765.7	877.9	1027.7	1102.5	1234.2	1497.6	1695.1	1724.6
132.5°	706.5	742.9	779.2	788.4	891.4	1028.8	1097.4	1215.3	1451.0	1627.8	1654.3
135°	740.1	773.3	806.5	814.7	906.1	1027.8	1088.7	1187.4	1384.8	1532.9	1555.7
137.5°	774.5	807.2	840.1	848.3	927.9	1034.1	1087.2	1170.6	1337.6	1462.7	1481.4
140°	802.9	833.2	863.4	870.9	941.3	1035.2	1082.1	1154.2	1298.4	1406.5	1424.0
142.5°	824.9	852.8	880.8	887.7	952.5	1038.9	1082.1	1145.4	1272.0	1367.1	1382.1
145°	858.5	882.9	907.3	913.3	967.2	1038.9	1074.8	1126.6	1230.1	1307.9	1319.2
147.5°	892.1	915.8	939.5	945.5	988.6	1046.1	1074.8	1115.5	1197.0	1258.2	1267.6
150°	914.0	935.5	956.9	962.3	999.8	1049.7	1074.8	1109.2	1178.1	1229.7	1237.4
152.5°	936.7	953.0	969.2	973.2	1007.1	1052.2	1074.8	1104.2	1163.0	1207.0	1212.8
155°	970.3	982.3	994.3	997.3	1023.1	1057.6	1074.8	1098.1	1145.0	1180.0	1183.8
157.5°	995.1	1006.8	1018.6	1021.5	1039.2	1062.9	1074.8	1093.0	1129.3	1156.6	1159.3
160°	1012.0	1021.1	1030.2	1032.4	1046.6	1065.4	1074.8	1090.4	1121.6	1145.0	1146.5
162.5°	1028.8	1035.6	1042.5	1044.1	1054.3	1067.9	1074.8	1088.0	1114.2	1134.0	1135.5
165°	1047.0	1053.2	1059.3	1060.9	1065.6	1071.7	1074.8	1084.2	1103.1	1117.2	1118.8
167.5°	1063.8	1066.7	1069.7	1070.4	1074.2	1079.4	1082.1	1088.2	1100.6	1109.8	1110.4
170°	1074.8	1077.7	1080.7	1081.4	1081.6	1081.9	1082.1	1088.2	1100.6	1109.8	1109.8
172.5°	1080.7	1081.3	1081.9	1082.1	1082.1	1082.1	1082.1	1087.0	1096.7	1104.0	1103.5
175°	1088.7	1088.7	1088.7	1088.7	1086.5	1083.6	1082.1	1085.1	1091.3	1095.9	1095.9
177.5°	1088.7	1088.7	1088.7	1088.7	1087.0	1084.7	1083.6	1086.0	1090.8	1094.5	1093.9
180°	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	721.9	721.9
2.5°	770.6	766.0
5°	991.1	995.7
7.5°	1334.6	1332.3
10°	1659.5	1680.5
12.5°	1896.3	1901.0
15°	2040.2	2049.5
17.5°	2095.9	2098.3
20°	2098.3	2093.6
22.5°	2072.7	2068.0
25°	2042.6	2040.2
27.5°	2014.6	2017.0
30°	2003.1	2010.1
32.5°	2003.1	2014.6
35°	2007.7	2019.3
37.5°	2005.4	2019.3
40°	1996.1	2012.4
42.5°	1970.6	1982.1
45°	1931.1	1945.1
47.5°	1880.1	1889.3
50°	1815.1	1824.3
52.5°	1733.9	1736.1
55°	1636.4	1645.7
57.5°	1531.9	1534.2
60°	1415.8	1422.8
62.5°	1292.9	1292.9
65°	1162.9	1167.5
67.5°	1028.2	1039.8
70°	891.3	893.6
72.5°	756.7	756.7
75°	617.4	619.7
77.5°	485.1	485.1
80°	359.8	362.1
82.5°	248.4	253.0
85°	155.5	155.5
87.5°	71.9	65.0
90°	27.8	27.8
92.5°	111.3	89.1
95°	387.7	320.8
97.5°	928.8	801.5
100°	1338.3	1186.6
102.5°	1741.0	1611.1
105°	2254.4	2184.6
107.5°	2590.8	2607.7
110°	2719.0	2791.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2730.5	2842.2
115°	2658.1	2813.0
117.5°	2504.6	2676.4
120°	2380.9	2547.8
122.5°	2260.4	2425.0
125°	2088.5	2240.2
127.5°	1933.9	2061.9
130°	1842.9	1961.1
132.5°	1760.2	1866.0
135°	1647.0	1738.2
137.5°	1556.1	1630.8
140°	1493.7	1563.6
142.5°	1442.2	1502.2
145°	1364.7	1410.1
147.5°	1305.2	1342.9
150°	1267.8	1298.4
152.5°	1235.9	1258.9
155°	1199.1	1214.3
157.5°	1170.0	1180.7
160°	1152.7	1158.8
162.5°	1141.3	1147.1
165°	1124.9	1131.1
167.5°	1113.1	1115.7
170°	1109.8	1109.8
172.5°	1101.2	1098.9
175°	1095.9	1095.9
177.5°	1091.3	1088.7
180°	1088.7	1088.7



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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	4.65	5.49	5.65	6.51	7.86	17.83	18.67	18.83	19.69	21.04
	3H	5.35	6.11	6.36	7.14	8.50	19.67	20.43	20.67	21.45	22.82
	4H	5.65	6.37	6.67	7.40	8.77	20.31	21.03	21.33	22.06	23.43
	6H	5.90	6.56	6.93	7.59	8.98	20.74	21.40	21.77	22.43	23.82
	8H	5.97	6.60	7.01	7.65	9.03	20.86	21.49	21.90	22.54	23.93
	12H	5.99	6.59	7.03	7.63	9.04	20.93	21.53	21.97	22.57	23.98
4H	2H	11.86	12.58	12.89	13.61	14.99	18.10	18.82	19.13	19.85	21.22
	3H	13.43	14.03	14.47	15.09	16.48	20.14	20.75	21.18	21.80	23.19
	4H	13.52	14.08	14.57	15.12	16.53	20.91	21.46	21.95	22.51	23.92
	6H	13.53	14.01	14.59	15.08	16.49	21.45	21.93	22.50	22.99	24.40
	8H	13.51	13.95	14.56	15.02	16.44	21.61	22.06	22.67	23.12	24.54
	12H	13.47	13.87	14.54	14.94	16.37	21.70	22.11	22.78	23.18	24.61
8H	4H	14.97	15.41	16.02	16.47	17.90	20.97	21.41	22.02	22.48	23.90
	6H	15.21	15.58	16.29	16.68	18.10	21.60	21.97	22.68	23.07	24.49
	8H	15.23	15.55	16.31	16.64	18.08	21.82	22.14	22.90	23.23	24.67
	12H	15.19	15.48	16.28	16.56	18.04	21.96	22.25	23.05	23.33	24.81
12H	4H	15.11	15.51	16.18	16.59	18.02	20.92	21.32	22.00	22.40	23.83
	6H	15.47	15.79	16.55	16.88	18.32	21.58	21.91	22.67	22.99	24.43
	8H	15.53	15.82	16.63	16.90	18.38	21.81	22.10	22.90	23.18	24.66