

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: P938464

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-6-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938464
REPORT IS A COMBINATION OF REPORTS P933639 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-6-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

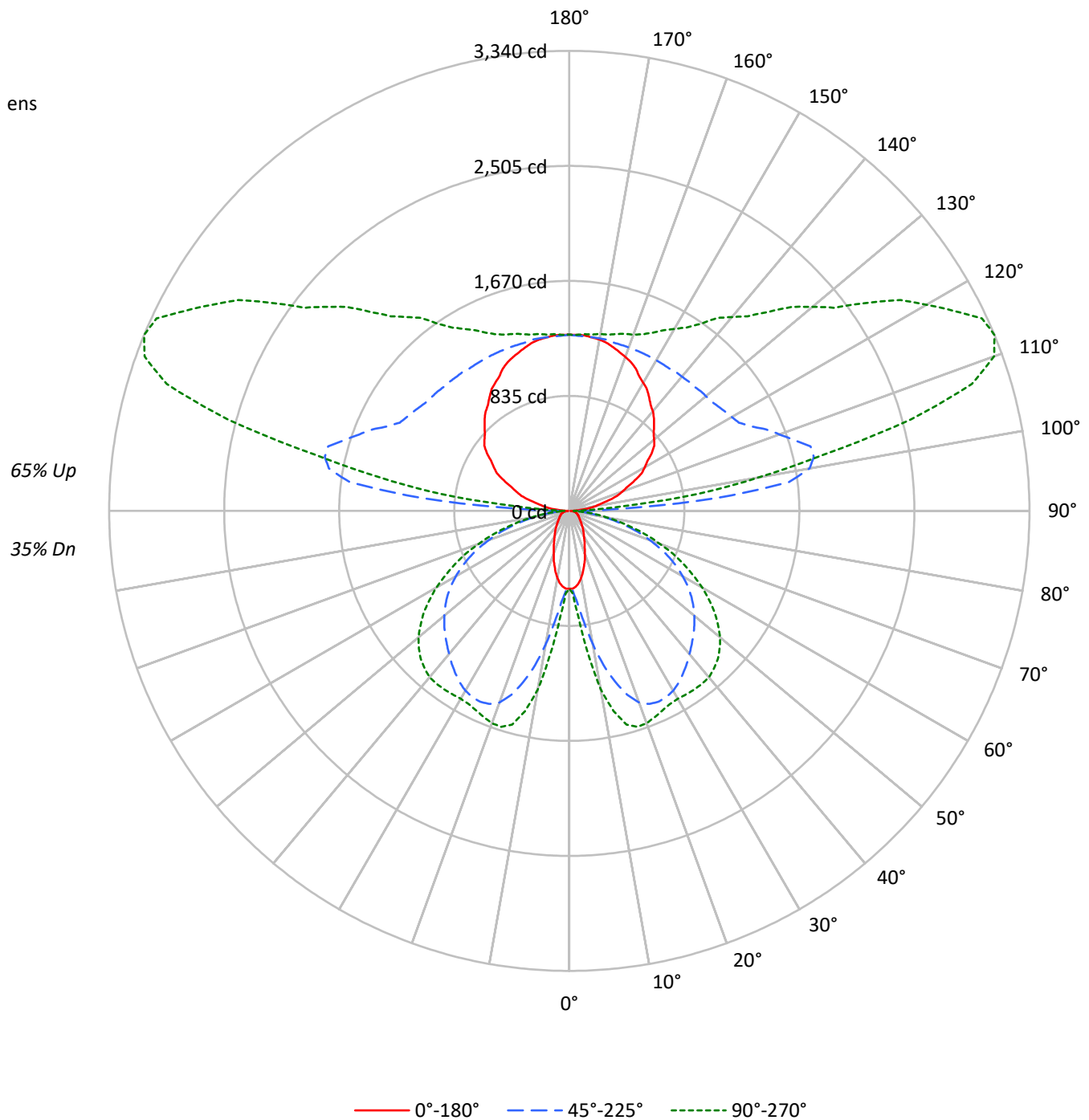
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12673.4 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 108.6
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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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	50	30	10	0
RCR																					
0	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3499	3499	3499
5°	3417	4043	4703
10°	3098	5892	7797
15°	2633	7696	9415
20°	2142	8916	9595
25°	1786	9328	9400
30°	1506	9385	9382
35°	1330	9226	9625
40°	1159	9021	9876
45°	1049	8870	9914
50°	962	8734	9750
55°	920	8535	9319
60°	940	8157	8635
65°	977	7584	7698
70°	1038	6609	6503
75°	1145	5383	5075
80°	1243	3729	3421
85°	1085	1975	1751

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9914 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	0.6
10°-20°	324.3	2.6
20°-30°	567.2	4.5
30°-40°	730.1	5.8
40°-50°	815.5	6.4
50°-60°	781.1	6.2
60°-70°	619.0	4.9
70°-80°	364.0	2.9
80°-90°	106.0	0.8
90°-100°	623.6	4.9
100°-110°	1639.4	12.9
110°-120°	1699.9	13.4
120°-130°	1363.5	10.8
130°-140°	1069.9	8.4
140°-150°	821.2	6.5
150°-160°	591.4	4.7
160°-170°	361.8	2.9
170°-180°	122.2	1.0
0°-30°	964.6	7.6
0°-40°	1694.8	13.4
0°-60°	3291.4	26.0
0°-90°	4380.5	34.6
90°-120°	3962.9	31.3
90°-150°	7217.5	56.9
90°-180°	8293.0	65.4
0°-180°	12673.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	551	591	666	753	780	51
15°	413	762	1284	1557	1606	115
25°	264	864	1530	1597	1599	121
35°	178	826	1440	1522	1582	111
45°	122	658	1273	1459	1524	94
55°	87	418	1080	1255	1290	80
65°	69	222	802	902	915	68
75°	51	136	440	484	486	53
85°	18	42	109	120	122	19
90°	9	24	65	33	33	8
95°	82	323	1074	554	377	91
105°	295	447	1812	2752	2567	313
115°	525	637	1452	2896	3305	518
125°	730	818	1320	2231	2632	648
135°	870	957	1279	1801	2042	673
145°	1009	1073	1263	1537	1657	632
155°	1140	1172	1263	1386	1427	524
165°	1230	1247	1263	1313	1329	347
175°	1279	1279	1272	1288	1288	121
180°	1279	1279	1279	1279	1279	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	565.6	565.6	565.6	565.6	565.6	565.6	565.6	565.6	565.6	565.6	565.6
2.5°	565.6	565.6	569.2	571.1	574.7	576.5	580.2	583.8	594.7	596.5	600.2
5°	551.1	558.3	582.0	591.1	616.5	651.1	665.6	689.3	738.4	753.0	762.1
7.5°	529.2	545.6	603.8	618.3	682.0	773.0	811.2	862.1	940.3	978.4	1009.4
10°	494.6	529.2	632.9	667.4	771.1	909.3	980.3	1051.2	1169.4	1222.2	1242.2
12.5°	456.5	512.9	663.9	711.1	860.2	1062.1	1147.6	1225.8	1360.4	1431.3	1442.2
15°	412.9	489.2	693.0	762.1	954.8	1189.4	1284.0	1380.4	1505.8	1556.8	1569.5
17.5°	374.7	471.1	720.2	793.0	1027.5	1304.0	1400.4	1480.4	1582.3	1616.8	1625.9
20°	327.3	442.0	738.4	833.0	1104.0	1387.6	1480.4	1542.3	1611.4	1633.2	1636.8
22.5°	292.8	411.0	749.3	847.5	1154.8	1438.6	1516.8	1565.9	1613.2	1620.5	1622.3
25°	263.7	376.4	747.5	863.9	1198.5	1469.5	1529.5	1565.9	1593.2	1596.8	1596.8
27.5°	236.4	338.3	740.2	867.5	1231.3	1476.8	1524.0	1549.5	1562.3	1569.5	1569.5
30°	212.8	301.9	722.0	860.2	1245.8	1469.5	1507.7	1520.4	1533.2	1544.0	1549.5
32.5°	194.6	267.3	694.7	845.7	1247.6	1451.3	1478.6	1485.8	1504.0	1529.5	1538.6
35°	178.2	232.8	663.9	825.7	1236.7	1422.2	1440.4	1447.7	1484.0	1522.3	1534.9
37.5°	161.9	207.3	623.8	791.1	1220.4	1387.6	1400.4	1413.2	1469.5	1514.9	1529.5
40°	145.5	185.5	576.5	753.0	1194.8	1345.8	1356.7	1376.7	1451.3	1504.0	1518.6
42.5°	132.8	167.3	525.6	713.0	1162.2	1298.5	1314.9	1344.0	1429.5	1485.8	1502.3
45°	121.9	149.1	471.1	658.4	1120.3	1249.4	1273.1	1313.1	1404.0	1458.6	1473.2
47.5°	110.9	136.4	414.7	602.0	1074.8	1200.3	1231.3	1276.7	1369.5	1422.2	1434.9
50°	101.9	123.7	358.3	542.0	1025.7	1147.6	1184.0	1231.3	1325.8	1374.9	1391.3
52.5°	94.6	112.8	305.5	482.0	969.4	1093.1	1134.8	1184.0	1273.1	1320.4	1331.3
55°	87.3	103.7	260.1	418.3	911.2	1034.8	1080.3	1127.6	1214.8	1254.9	1262.2
57.5°	83.7	96.4	221.9	358.3	849.3	969.4	1020.3	1064.0	1145.7	1176.7	1184.0
60°	78.2	90.9	192.8	307.3	782.1	907.5	951.2	994.8	1064.0	1089.4	1094.8
62.5°	72.8	87.3	171.0	258.2	713.0	834.7	878.4	918.4	976.6	994.8	1002.1
65°	69.1	83.7	154.6	221.9	642.0	758.4	802.1	836.6	883.9	902.1	905.7
67.5°	65.4	80.0	141.9	191.0	571.1	682.0	714.7	747.5	783.9	802.1	803.9
70°	60.0	76.4	131.0	169.1	498.3	594.7	622.0	656.5	685.6	694.7	700.2
72.5°	56.3	70.9	123.7	152.8	423.8	511.1	536.5	556.5	582.0	591.1	591.1
75°	50.9	63.7	116.4	136.4	347.3	418.3	440.1	460.1	480.1	483.8	478.3
77.5°	45.4	56.3	100.0	114.6	271.0	331.0	349.2	360.1	376.4	380.1	381.9
80°	38.2	49.1	78.2	89.1	196.4	243.7	256.4	265.5	280.1	280.1	283.8
82.5°	29.1	38.2	56.3	63.7	132.8	167.3	178.2	183.7	192.8	192.8	192.8
85°	18.2	23.7	36.3	41.8	80.0	101.9	109.1	110.9	118.2	120.0	120.0
87.5°	9.1	12.8	23.7	25.4	41.8	52.8	52.8	56.3	56.3	54.6	52.8
90°	8.6	15.5	22.3	24.0	37.8	56.1	65.2	58.0	43.5	32.7	32.7
92.5°	34.3	92.7	151.1	165.7	233.0	322.7	367.4	322.0	231.3	163.2	156.7
95°	82.4	189.2	296.1	322.8	573.3	907.1	1074.1	958.4	727.2	553.7	534.1
97.5°	142.5	236.8	331.0	354.6	772.1	1328.9	1607.3	1534.2	1388.0	1278.4	1241.0
100°	188.9	274.4	359.8	381.2	844.6	1462.3	1771.2	1776.6	1787.3	1795.3	1750.8
102.5°	228.4	308.2	387.9	407.8	877.8	1504.3	1817.6	1910.6	2096.8	2236.5	2198.3
105°	295.3	362.9	430.4	447.3	902.4	1509.1	1812.4	2021.1	2438.6	2751.7	2731.2
107.5°	364.0	427.0	490.0	505.6	906.9	1441.9	1709.4	2000.6	2582.9	3019.6	3024.5
110°	410.4	467.3	524.1	538.3	900.1	1382.3	1623.5	1949.0	2600.0	3088.2	3109.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	455.9	510.1	564.2	577.8	900.4	1330.4	1545.4	1878.5	2544.8	3044.5	3077.3
115°	524.6	574.6	624.6	637.1	908.6	1270.7	1451.8	1772.7	2414.5	2895.9	2941.4
117.5°	592.4	637.8	683.2	694.6	925.6	1233.5	1387.5	1677.1	2256.2	2690.7	2741.2
120°	631.9	674.7	717.5	728.1	939.3	1220.9	1361.7	1626.3	2155.6	2552.5	2601.5
122.5°	670.6	713.7	756.8	767.6	959.0	1214.3	1341.9	1580.3	2056.8	2414.3	2462.6
125°	729.8	769.0	808.4	818.2	985.6	1208.9	1320.5	1522.9	1927.7	2231.4	2275.9
127.5°	777.8	817.5	857.2	867.1	1012.2	1205.7	1302.4	1476.2	1823.8	2084.5	2122.2
130°	803.6	846.4	889.2	899.8	1031.8	1207.7	1295.6	1450.3	1759.8	1991.9	2026.5
132.5°	830.2	873.0	915.8	926.4	1047.5	1208.9	1289.5	1428.0	1705.1	1912.8	1944.0
135°	869.7	908.6	947.6	957.3	1064.6	1207.7	1279.3	1395.3	1627.3	1801.3	1828.0
137.5°	910.1	948.6	987.2	996.8	1090.4	1215.1	1277.5	1375.6	1571.7	1718.8	1740.8
140°	943.6	979.1	1014.5	1023.4	1106.1	1216.4	1271.6	1356.3	1525.7	1652.8	1673.2
142.5°	969.3	1002.1	1035.0	1043.1	1119.3	1220.8	1271.6	1346.0	1494.7	1606.3	1624.0
145°	1008.8	1037.5	1066.1	1073.2	1136.5	1220.8	1262.9	1323.8	1445.6	1536.9	1550.2
147.5°	1048.3	1076.2	1104.0	1111.0	1161.6	1229.2	1262.9	1310.8	1406.6	1478.4	1489.5
150°	1074.1	1099.2	1124.4	1130.7	1174.7	1233.6	1262.9	1303.4	1384.3	1444.9	1453.9
152.5°	1100.7	1119.8	1138.9	1143.6	1183.4	1236.4	1262.9	1297.4	1366.5	1418.3	1425.1
155°	1140.1	1154.3	1168.4	1171.9	1202.3	1242.7	1262.9	1290.4	1345.3	1386.5	1391.0
157.5°	1169.3	1183.1	1196.9	1200.3	1221.2	1249.0	1262.9	1284.3	1327.1	1359.1	1362.2
160°	1189.1	1199.8	1210.4	1213.1	1229.7	1251.8	1262.9	1281.3	1317.9	1345.3	1347.2
162.5°	1208.9	1216.9	1224.8	1226.9	1238.9	1254.9	1262.9	1278.3	1309.3	1332.5	1334.2
165°	1230.4	1237.6	1244.8	1246.6	1252.0	1259.3	1262.9	1274.0	1296.2	1312.8	1314.6
167.5°	1250.1	1253.5	1257.0	1257.8	1262.4	1268.5	1271.6	1278.8	1293.3	1304.1	1304.9
170°	1262.9	1266.3	1269.8	1270.6	1270.9	1271.4	1271.6	1278.8	1293.3	1304.1	1304.1
172.5°	1269.8	1270.5	1271.4	1271.6	1271.6	1271.6	1271.6	1277.2	1288.7	1297.3	1296.6
175°	1279.3	1279.3	1279.3	1279.3	1276.7	1273.3	1271.6	1275.1	1282.4	1287.8	1287.8
177.5°	1279.3	1279.3	1279.3	1279.3	1277.2	1274.6	1273.2	1276.1	1281.8	1286.1	1285.4
180°	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	565.6	565.6
2.5°	603.8	600.2
5°	776.6	780.2
7.5°	1045.7	1044.0
10°	1300.4	1316.7
12.5°	1485.8	1489.5
15°	1598.6	1605.9
17.5°	1642.3	1644.1
20°	1644.1	1640.5
22.5°	1624.0	1620.5
25°	1600.5	1598.6
27.5°	1578.6	1580.5
30°	1569.5	1574.9
32.5°	1569.5	1578.6
35°	1573.2	1582.3
37.5°	1571.4	1582.3
40°	1564.0	1576.8
42.5°	1544.0	1553.2
45°	1513.2	1524.0
47.5°	1473.2	1480.4
50°	1422.2	1429.5
52.5°	1358.6	1360.4
55°	1282.2	1289.5
57.5°	1200.3	1202.2
60°	1109.4	1114.8
62.5°	1013.0	1013.0
65°	911.2	914.8
67.5°	805.6	814.7
70°	698.4	700.2
72.5°	592.9	592.9
75°	483.8	485.6
77.5°	380.1	380.1
80°	281.9	283.8
82.5°	194.6	198.2
85°	121.9	121.9
87.5°	56.3	50.9
90°	32.7	32.7
92.5°	130.7	104.7
95°	455.5	376.9
97.5°	1091.4	941.8
100°	1572.6	1394.3
102.5°	2045.7	1893.1
105°	2649.1	2567.1
107.5°	3044.4	3064.2
110°	3195.0	3280.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3208.5	3339.8
115°	3123.4	3305.4
117.5°	2943.0	3144.9
120°	2797.7	2993.8
122.5°	2656.1	2849.5
125°	2454.1	2632.3
127.5°	2272.5	2422.9
130°	2165.5	2304.3
132.5°	2068.3	2192.7
135°	1935.3	2042.5
137.5°	1828.6	1916.3
140°	1755.3	1837.3
142.5°	1694.6	1765.2
145°	1603.6	1657.0
147.5°	1533.7	1578.1
150°	1489.8	1525.7
152.5°	1452.2	1479.3
155°	1408.9	1426.9
157.5°	1374.9	1387.5
160°	1354.4	1361.7
162.5°	1341.0	1347.9
165°	1321.8	1329.0
167.5°	1308.0	1311.0
170°	1304.1	1304.1
172.5°	1293.9	1291.3
175°	1287.8	1287.8
177.5°	1282.3	1279.3
180°	1279.3	1279.3



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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	3.74	4.51	4.82	5.58	7.06	16.91	17.67	17.98	18.75	20.22
	3H	4.44	5.13	5.52	6.21	7.70	18.74	19.42	19.82	20.51	22.00
	4H	4.74	5.39	5.83	6.47	7.97	19.37	20.02	20.47	21.11	22.61
	6H	4.98	5.58	6.08	6.67	8.18	19.79	20.39	20.90	21.48	22.99
	8H	5.05	5.62	6.15	6.72	8.23	19.91	20.48	21.02	21.59	23.09
	12H	5.06	5.60	6.17	6.70	8.23	19.97	20.51	21.08	21.61	23.14
4H	2H	10.94	11.59	12.04	12.68	14.17	17.17	17.82	18.27	18.91	20.41
	3H	12.50	13.04	13.61	14.16	15.67	19.20	19.75	20.31	20.86	22.37
	4H	12.59	13.09	13.70	14.19	15.72	19.96	20.46	21.07	21.57	23.10
	6H	12.59	13.02	13.71	14.15	15.67	20.49	20.92	21.61	22.05	23.57
	8H	12.57	12.97	13.69	14.09	15.63	20.65	21.05	21.77	22.17	23.71
	12H	12.52	12.88	13.66	14.01	15.56	20.73	21.10	21.87	22.23	23.77
8H	4H	14.02	14.42	15.14	15.54	17.08	20.01	20.41	21.13	21.53	23.07
	6H	14.26	14.59	15.40	15.75	17.29	20.63	20.97	21.78	22.13	23.66
	8H	14.28	14.57	15.42	15.71	17.26	20.85	21.14	22.00	22.28	23.84
	12H	14.24	14.49	15.39	15.63	17.22	20.99	21.24	22.14	22.38	23.97
12H	4H	14.16	14.52	15.30	15.65	17.20	19.96	20.32	21.10	21.46	23.00
	6H	14.51	14.81	15.66	15.95	17.50	20.62	20.91	21.76	22.05	23.60
	8H	14.58	14.83	15.73	15.97	17.56	20.84	21.09	21.99	22.23	23.82