

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: P938462

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

**Test Information**

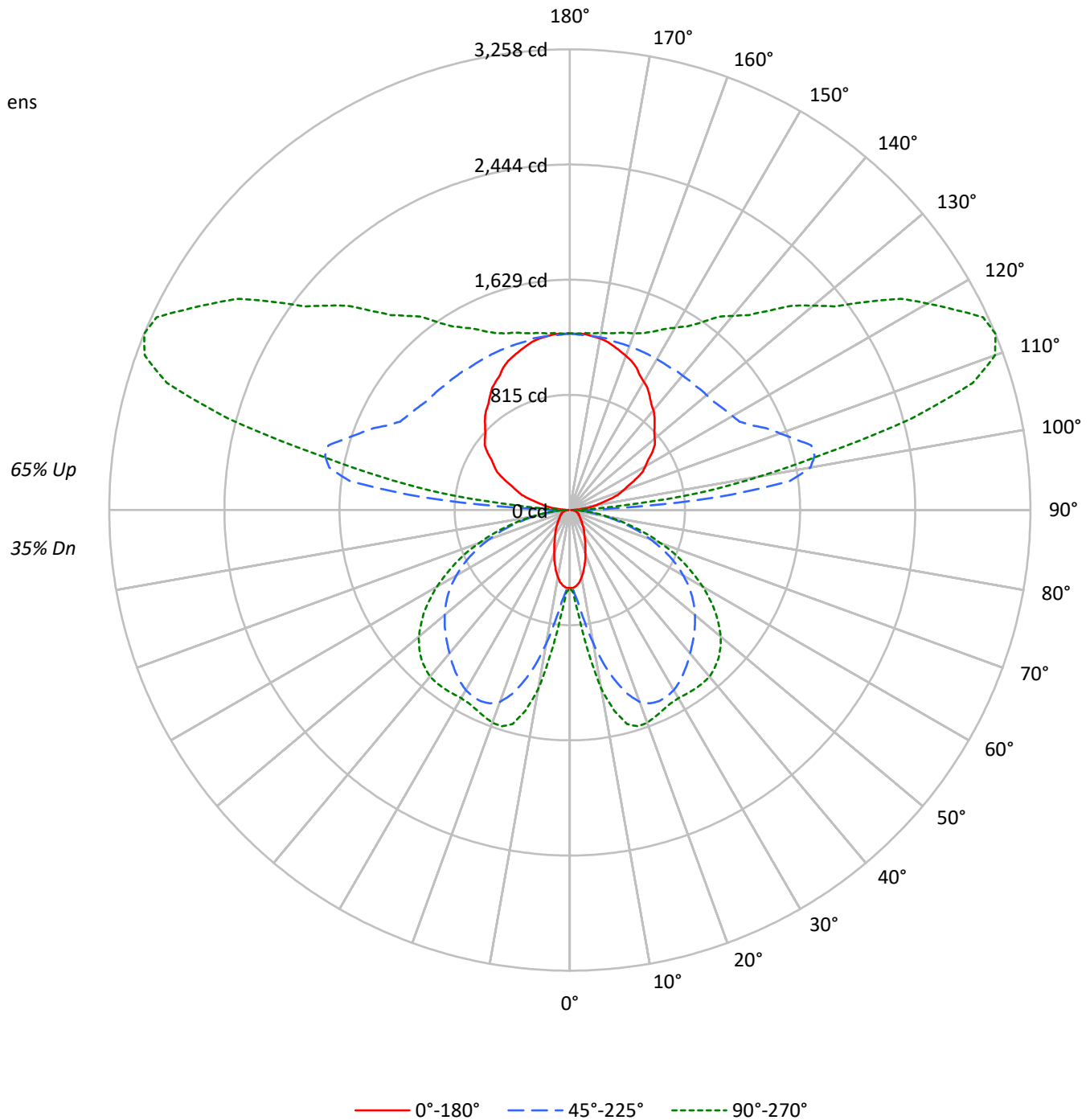
Test Method: LM-79-2019  
Report Number: P938462  
REPORT IS A COMBINATION OF REPORTS P933639 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-6-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12364.3 lumens  
Efficiency: N/A  
Efficacy: 113.9 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 (A<sub>in</sub>): 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°	3414	3414	3414
5°	3334	3944	4588
10°	3023	5749	7607
15°	2568	7508	9185
20°	2090	8699	9361
25°	1743	9101	9171
30°	1469	9156	9153
35°	1298	9002	9391
40°	1130	8801	9635
45°	1023	8654	9672
50°	938	8521	9512
55°	896	8328	9091
60°	918	7958	8425
65°	953	7398	7510
70°	1013	6447	6344
75°	1118	5253	4951
80°	1211	3639	3336
85°	1055	1928	1708

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9672 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.4	0.6
10°-20°	316.4	2.6
20°-30°	553.4	4.5
30°-40°	712.3	5.8
40°-50°	795.7	6.4
50°-60°	762.1	6.2
60°-70°	603.9	4.9
70°-80°	355.1	2.9
80°-90°	103.4	0.8
90°-100°	608.4	4.9
100°-110°	1599.4	12.9
110°-120°	1658.4	13.4
120°-130°	1330.3	10.8
130°-140°	1043.8	8.4
140°-150°	801.1	6.5
150°-160°	576.9	4.7
160°-170°	353.0	2.9
170°-180°	119.3	1.0
0°-30°	941.1	7.6
0°-40°	1653.4	13.4
0°-60°	3211.1	26.0
0°-90°	4273.6	34.6
90°-120°	3866.2	31.3
90°-150°	7041.4	56.9
90°-180°	8091.0	65.4
0°-180°	12364.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	538	577	649	735	761	50
15°	403	744	1253	1519	1567	112
25°	257	843	1492	1558	1560	119
35°	174	806	1405	1485	1544	109
45°	119	642	1242	1423	1487	92
55°	85	408	1054	1224	1258	78
65°	67	216	782	880	892	67
75°	50	133	429	472	474	52
85°	18	41	106	117	119	19
90°	8	24	64	32	32	8
95°	80	315	1048	540	368	89
105°	288	436	1768	2685	2504	305
115°	512	622	1416	2825	3225	505
125°	712	798	1288	2177	2568	632
135°	848	934	1248	1757	1993	657
145°	984	1047	1232	1499	1617	617
155°	1112	1143	1232	1353	1392	511
165°	1200	1216	1232	1281	1297	339
175°	1248	1248	1240	1256	1256	118
180°	1248	1248	1248	1248	1248	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	551.8	551.8	551.8	551.8	551.8	551.8	551.8	551.8	551.8	551.8	551.8
2.5°	551.8	551.8	555.4	557.2	560.6	562.4	566.0	569.6	580.2	582.0	585.5
5°	537.6	544.7	567.8	576.7	601.5	635.2	649.4	672.5	720.4	734.6	743.5
7.5°	516.3	532.3	589.1	603.3	665.4	754.1	791.4	841.1	917.3	954.6	984.8
10°	482.6	516.3	617.5	651.2	752.3	887.2	956.4	1025.6	1140.9	1192.4	1211.9
12.5°	445.3	500.4	647.7	693.8	839.3	1036.2	1119.6	1195.9	1327.2	1396.4	1407.1
15°	402.8	477.3	676.1	743.5	931.5	1160.4	1252.7	1346.7	1469.1	1518.8	1531.3
17.5°	365.6	459.6	702.6	773.6	1002.5	1272.2	1366.2	1444.3	1543.7	1577.4	1586.2
20°	319.4	431.2	720.4	812.7	1077.1	1353.8	1444.3	1504.7	1572.1	1593.4	1596.9
22.5°	285.7	401.0	731.0	826.8	1126.7	1403.5	1479.8	1527.7	1573.9	1580.9	1582.7
25°	257.3	367.3	729.2	842.8	1169.3	1433.7	1492.2	1527.7	1554.4	1557.8	1557.8
27.5°	230.6	330.0	722.2	846.3	1201.2	1440.7	1486.8	1511.7	1524.2	1531.3	1531.3
30°	207.6	294.6	704.4	839.3	1215.4	1433.7	1470.9	1483.4	1495.8	1506.4	1511.7
32.5°	189.9	260.8	677.8	825.0	1217.2	1415.9	1442.5	1449.6	1467.3	1492.2	1501.1
35°	173.9	227.1	647.7	805.5	1206.5	1387.6	1405.3	1412.4	1447.8	1485.1	1497.5
37.5°	157.9	202.3	608.6	771.8	1190.6	1353.8	1366.2	1378.7	1433.7	1478.0	1492.2
40°	141.9	180.9	562.4	734.6	1165.7	1313.0	1323.6	1343.1	1415.9	1467.3	1481.6
42.5°	129.6	163.2	512.7	695.6	1133.8	1266.9	1282.8	1311.2	1394.6	1449.6	1465.6
45°	118.9	145.5	459.6	642.3	1093.0	1219.0	1242.1	1281.1	1369.7	1423.0	1437.2
47.5°	108.2	133.0	404.6	587.3	1048.6	1171.1	1201.2	1245.6	1336.1	1387.6	1399.9
50°	99.4	120.7	349.5	528.8	1000.7	1119.6	1155.1	1201.2	1293.5	1341.4	1357.4
52.5°	92.3	110.0	298.0	470.2	945.7	1066.4	1107.1	1155.1	1242.1	1288.2	1298.8
55°	85.1	101.2	253.7	408.1	889.0	1009.6	1054.0	1100.1	1185.2	1224.2	1231.4
57.5°	81.7	94.0	216.5	349.5	828.6	945.7	995.4	1038.0	1117.8	1148.0	1155.1
60°	76.3	88.7	188.1	299.8	763.0	885.4	928.0	970.5	1038.0	1062.8	1068.1
62.5°	71.0	85.1	166.8	251.9	695.6	814.4	857.0	896.0	952.8	970.5	977.7
65°	67.4	81.7	150.9	216.5	626.4	739.9	782.5	816.2	862.4	880.1	883.6
67.5°	63.8	78.1	138.4	186.3	557.2	665.4	697.3	729.2	764.8	782.5	784.3
70°	58.6	74.5	127.8	165.0	486.2	580.2	606.8	640.5	668.9	677.8	683.1
72.5°	55.0	69.2	120.7	149.1	413.5	498.6	523.4	542.9	567.8	576.7	576.7
75°	49.7	62.1	113.5	133.0	338.9	408.1	429.4	448.9	468.4	472.0	466.6
77.5°	44.3	55.0	97.6	111.8	264.4	322.9	340.7	351.3	367.3	370.8	372.6
80°	37.2	47.9	76.3	86.9	191.6	237.8	250.2	259.0	273.2	273.2	276.8
82.5°	28.4	37.2	55.0	62.1	129.6	163.2	173.9	179.2	188.1	188.1	188.1
85°	17.7	23.1	35.5	40.8	78.1	99.4	106.5	108.2	115.3	117.1	117.1
87.5°	8.9	12.4	23.1	24.8	40.8	51.5	51.5	55.0	55.0	53.3	51.5
90°	8.4	15.1	21.8	23.5	36.9	54.7	63.7	56.6	42.4	31.9	31.9
92.5°	33.5	90.4	147.5	161.7	227.3	314.8	358.5	314.2	225.6	159.2	152.8
95°	80.4	184.6	288.9	315.0	559.3	885.0	1047.9	935.1	709.4	540.2	521.1
97.5°	139.0	231.0	322.9	345.9	753.3	1296.5	1568.0	1496.8	1354.2	1247.3	1210.7
100°	184.3	267.7	351.1	371.9	824.0	1426.7	1728.0	1733.2	1743.7	1751.5	1708.1
102.5°	222.8	300.6	378.4	397.9	856.4	1467.6	1773.3	1864.0	2045.7	2182.0	2144.7
105°	288.1	354.0	419.9	436.4	880.4	1472.3	1768.2	1971.8	2379.1	2684.6	2664.5
107.5°	355.2	416.6	478.0	493.3	884.7	1406.7	1667.7	1951.8	2519.9	2945.9	2950.8
110°	400.4	455.9	511.3	525.2	878.1	1348.6	1583.9	1901.5	2536.6	3012.9	3033.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	444.8	497.6	550.4	563.7	878.4	1297.9	1507.7	1832.7	2482.7	2970.2	3002.2
115°	511.8	560.6	609.3	621.5	886.4	1239.7	1416.4	1729.5	2355.7	2825.2	2869.7
117.5°	577.9	622.2	666.6	677.7	903.0	1203.4	1353.6	1636.2	2201.2	2625.1	2674.3
120°	616.5	658.2	700.0	710.3	916.4	1191.1	1328.5	1586.7	2103.0	2490.2	2538.0
122.5°	654.2	696.3	738.4	748.8	935.6	1184.7	1309.2	1541.7	2006.7	2355.4	2402.6
125°	712.0	750.3	788.7	798.3	961.6	1179.4	1288.3	1485.8	1880.7	2177.0	2220.4
127.5°	758.9	797.5	836.3	846.0	987.5	1176.3	1270.6	1440.2	1779.3	2033.7	2070.4
130°	784.0	825.7	867.5	877.9	1006.6	1178.2	1264.0	1415.0	1716.9	1943.3	1977.1
132.5°	810.0	851.7	893.4	903.8	1021.9	1179.4	1258.1	1393.2	1663.5	1866.2	1896.5
135°	848.5	886.4	924.5	934.0	1038.7	1178.2	1248.1	1361.2	1587.6	1757.3	1783.5
137.5°	887.9	925.5	963.1	972.5	1063.8	1185.5	1246.4	1342.1	1533.4	1676.9	1698.3
140°	920.6	955.2	989.8	998.5	1079.1	1186.7	1240.5	1323.2	1488.5	1612.5	1632.4
142.5°	945.6	977.7	1009.7	1017.7	1092.0	1191.0	1240.5	1313.2	1458.3	1567.2	1584.3
145°	984.2	1012.2	1040.1	1047.1	1108.8	1191.0	1232.1	1291.5	1410.3	1499.4	1512.4
147.5°	1022.7	1049.9	1077.1	1083.9	1133.3	1199.2	1232.1	1278.9	1372.2	1442.3	1453.2
150°	1047.9	1072.4	1096.9	1103.1	1146.1	1203.5	1232.1	1271.6	1350.5	1409.7	1418.4
152.5°	1073.8	1092.5	1111.1	1115.7	1154.5	1206.3	1232.1	1265.8	1333.2	1383.7	1390.3
155°	1112.3	1126.1	1139.9	1143.3	1172.9	1212.4	1232.1	1258.9	1312.5	1352.7	1357.1
157.5°	1140.8	1154.2	1167.7	1171.0	1191.4	1218.5	1232.1	1253.0	1294.7	1326.0	1329.0
160°	1160.1	1170.5	1180.9	1183.5	1199.7	1221.3	1232.1	1250.0	1285.8	1312.5	1314.3
162.5°	1179.4	1187.2	1195.0	1196.9	1208.7	1224.3	1232.1	1247.2	1277.3	1300.0	1301.7
165°	1200.3	1207.4	1214.4	1216.2	1221.5	1228.5	1232.1	1243.0	1264.5	1280.7	1282.5
167.5°	1219.6	1222.9	1226.3	1227.1	1231.6	1237.6	1240.5	1247.6	1261.8	1272.3	1273.0
170°	1232.1	1235.4	1238.8	1239.6	1239.9	1240.4	1240.5	1247.6	1261.8	1272.3	1272.3
172.5°	1238.8	1239.6	1240.4	1240.5	1240.5	1240.5	1240.5	1246.1	1257.3	1265.6	1265.0
175°	1248.1	1248.1	1248.1	1248.1	1245.6	1242.2	1240.5	1244.0	1251.1	1256.4	1256.4
177.5°	1248.1	1248.1	1248.1	1248.1	1246.1	1243.5	1242.2	1244.9	1250.6	1254.8	1254.1
180°	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	551.8	551.8
2.5°	589.1	585.5
5°	757.6	761.2
7.5°	1020.2	1018.5
10°	1268.7	1284.6
12.5°	1449.6	1453.2
15°	1559.6	1566.7
17.5°	1602.3	1604.0
20°	1604.0	1600.5
22.5°	1584.4	1580.9
25°	1561.4	1559.6
27.5°	1540.1	1541.9
30°	1531.3	1536.5
32.5°	1531.3	1540.1
35°	1534.8	1543.7
37.5°	1533.0	1543.7
40°	1525.9	1538.3
42.5°	1506.4	1515.3
45°	1476.3	1486.8
47.5°	1437.2	1444.3
50°	1387.6	1394.6
52.5°	1325.4	1327.2
55°	1250.9	1258.0
57.5°	1171.1	1172.9
60°	1082.3	1087.6
62.5°	988.3	988.3
65°	889.0	892.4
67.5°	786.0	794.9
70°	681.3	683.1
72.5°	578.5	578.5
75°	472.0	473.7
77.5°	370.8	370.8
80°	275.0	276.8
82.5°	189.9	193.4
85°	118.9	118.9
87.5°	55.0	49.7
90°	31.9	31.9
92.5°	127.5	102.2
95°	444.3	367.7
97.5°	1064.8	918.9
100°	1534.2	1360.3
102.5°	1995.8	1846.9
105°	2584.5	2504.5
107.5°	2970.1	2989.4
110°	3117.1	3200.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3130.3	3258.3
115°	3047.2	3224.8
117.5°	2871.3	3068.2
120°	2729.4	2920.8
122.5°	2591.3	2780.0
125°	2394.2	2568.1
127.5°	2217.1	2363.8
130°	2112.7	2248.1
132.5°	2017.9	2139.3
135°	1888.1	1992.7
137.5°	1784.0	1869.6
140°	1712.5	1792.5
142.5°	1653.3	1722.1
145°	1564.5	1616.6
147.5°	1496.3	1539.6
150°	1453.4	1488.5
152.5°	1416.7	1443.2
155°	1374.6	1392.1
157.5°	1341.4	1353.6
160°	1321.4	1328.5
162.5°	1308.3	1315.0
165°	1289.5	1296.6
167.5°	1276.1	1279.0
170°	1272.3	1272.3
172.5°	1262.4	1259.8
175°	1256.4	1256.4
177.5°	1251.0	1248.1
180°	1248.1	1248.1



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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	3.66	4.42	4.73	5.50	6.97	16.82	17.59	17.90	18.66	20.14
	3H	4.36	5.04	5.44	6.13	7.62	18.65	19.33	19.73	20.42	21.91
	4H	4.65	5.30	5.74	6.39	7.89	19.29	19.94	20.38	21.02	22.52
	6H	4.90	5.49	6.00	6.58	8.09	19.71	20.31	20.81	21.40	22.91
	8H	4.96	5.53	6.07	6.64	8.14	19.82	20.39	20.93	21.50	23.00
	12H	4.97	5.52	6.09	6.62	8.14	19.89	20.43	21.00	21.53	23.06
4H	2H	10.85	11.50	11.95	12.59	14.09	17.09	17.74	18.19	18.82	20.32
	3H	12.41	12.96	13.52	14.07	15.58	19.12	19.66	20.22	20.78	22.29
	4H	12.50	13.00	13.61	14.11	15.64	19.88	20.38	20.99	21.48	23.01
	6H	12.51	12.94	13.63	14.06	15.59	20.40	20.83	21.52	21.96	23.48
	8H	12.48	12.88	13.60	14.00	15.54	20.56	20.96	21.68	22.08	23.62
	12H	12.43	12.80	13.57	13.93	15.47	20.65	21.01	21.78	22.14	23.69
8H	4H	13.94	14.34	15.05	15.46	17.00	19.93	20.33	21.05	21.45	22.99
	6H	14.17	14.50	15.31	15.67	17.20	20.55	20.88	21.69	22.04	23.58
	8H	14.19	14.48	15.34	15.62	17.18	20.76	21.05	21.91	22.20	23.75
	12H	14.15	14.41	15.30	15.55	17.14	20.90	21.16	22.05	22.29	23.89
12H	4H	14.07	14.44	15.21	15.57	17.11	19.88	20.24	21.01	21.37	22.92
	6H	14.43	14.72	15.58	15.86	17.42	20.53	20.82	21.68	21.96	23.52
	8H	14.49	14.75	15.64	15.89	17.48	20.75	21.01	21.90	22.15	23.74