

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: P937469

Luminaire Tested: SQ4-FB-100U-050D-935-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937469  
REPORT IS A COMBINATION OF REPORTS P933557 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-935-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

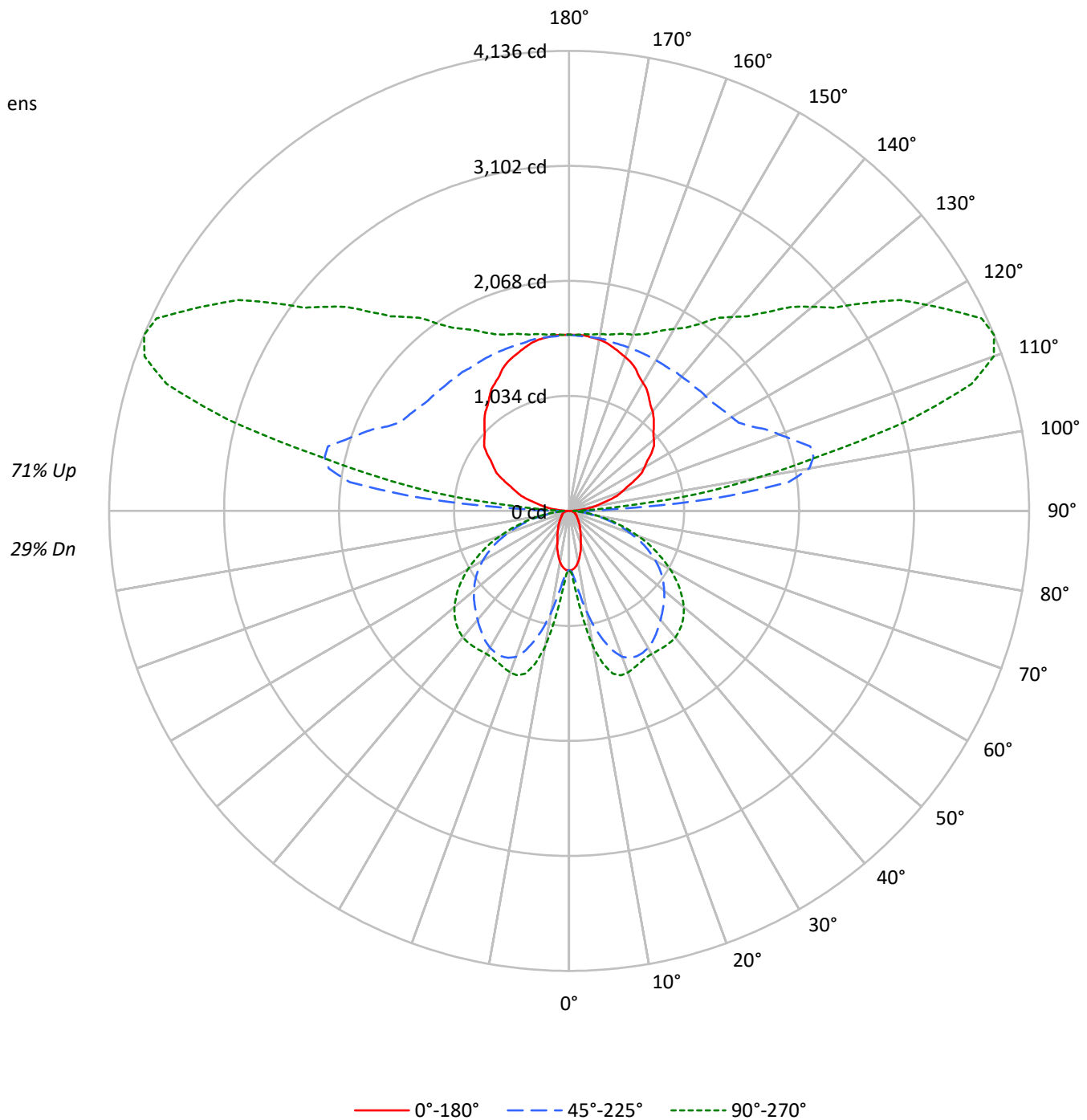
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14399.7 lumens  
Efficiency: N/A  
Efficacy: 116.5 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): 123.6  
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	28	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	21	19	18	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	13	11	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	12	10	8	6

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1649	1649	1649
5°	1612	1906	2216
10°	1462	2780	3675
15°	1244	3633	4437
20°	1013	4211	4523
25°	845	4407	4430
30°	713	4436	4422
35°	631	4364	4536
40°	550	4269	4655
45°	498	4200	4673
50°	457	4139	4595
55°	439	4048	4392
60°	449	3872	4070
65°	469	3604	3628
70°	500	3145	3065
75°	556	2566	2392
80°	612	1782	1612
85°	554	947	824

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4673 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.0	0.5
10°-20°	305.7	2.1
20°-30°	534.7	3.7
30°-40°	688.3	4.8
40°-50°	768.8	5.3
50°-60°	736.3	5.1
60°-70°	583.5	4.1
70°-80°	343.1	2.4
80°-90°	101.4	0.7
90°-100°	772.2	5.4
100°-110°	2030.1	14.1
110°-120°	2105.0	14.6
120°-130°	1688.5	11.7
130°-140°	1324.8	9.2
140°-150°	1016.9	7.1
150°-160°	732.3	5.1
160°-170°	448.1	3.1
170°-180°	151.4	1.1
0°-30°	909.3	6.3
0°-40°	1597.5	11.1
0°-60°	3102.6	21.5
0°-90°	4130.6	28.7
90°-120°	4907.2	34.1
90°-150°	8937.3	62.1
90°-180°	10269.0	71.3
0°-180°	14399.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	533	533	533	533	533	
5°	520	557	627	710	735	48
15°	389	718	1210	1468	1514	108
25°	249	814	1442	1505	1507	115
35°	168	778	1358	1435	1492	105
45°	115	621	1200	1375	1437	89
55°	82	394	1018	1183	1216	75
65°	65	209	756	850	862	65
75°	48	129	415	456	458	50
85°	17	39	103	113	115	18
90°	11	30	81	40	40	10
95°	102	400	1330	686	467	113
105°	366	554	2244	3407	3179	388
115°	650	789	1798	3586	4093	642
125°	904	1013	1635	2763	3260	802
135°	1077	1185	1584	2230	2529	833
145°	1249	1329	1564	1903	2052	783
155°	1412	1451	1564	1717	1767	649
165°	1524	1544	1564	1626	1646	430
175°	1584	1584	1574	1595	1595	150
180°	1584	1584	1584	1584	1584	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2
2.5°	533.2	533.2	536.6	538.3	541.7	543.4	546.9	550.3	560.6	562.3	565.7
5°	519.5	526.3	548.6	557.1	581.1	613.7	627.4	649.7	696.0	709.7	718.3
7.5°	498.8	514.3	569.1	582.9	642.9	728.6	764.6	812.6	886.3	922.3	951.4
10°	466.3	498.8	596.6	629.2	726.8	857.2	924.0	990.9	1102.3	1152.1	1170.9
12.5°	430.3	483.4	625.7	670.3	810.8	1001.2	1081.8	1155.5	1282.3	1349.2	1359.5
15°	389.2	461.2	653.1	718.3	900.1	1121.1	1210.4	1301.2	1419.5	1467.5	1479.5
17.5°	353.2	444.0	678.9	747.5	968.6	1229.2	1320.0	1395.5	1491.5	1524.1	1532.7
20°	308.6	416.6	696.0	785.2	1040.6	1308.1	1395.5	1453.8	1518.9	1539.5	1542.9
22.5°	276.0	387.4	706.3	798.9	1088.6	1356.0	1429.7	1476.1	1520.6	1527.5	1529.2
25°	248.6	354.9	704.6	814.3	1129.8	1385.2	1441.8	1476.1	1501.7	1505.2	1505.2
27.5°	222.9	318.9	697.7	817.7	1160.6	1392.1	1436.6	1460.6	1472.6	1479.5	1479.5
30°	200.6	284.6	680.6	810.8	1174.3	1385.2	1421.2	1433.2	1445.2	1455.5	1460.6
32.5°	183.4	252.0	654.8	797.1	1176.0	1368.1	1393.8	1400.6	1417.7	1441.8	1450.4
35°	168.0	219.5	625.7	778.3	1165.8	1340.6	1357.7	1364.6	1398.9	1434.9	1446.9
37.5°	152.6	195.4	588.1	745.8	1150.3	1308.1	1320.0	1332.0	1385.2	1428.0	1441.8
40°	137.2	174.8	543.4	709.7	1126.3	1268.6	1278.9	1297.8	1368.1	1417.7	1431.4
42.5°	125.2	157.7	495.4	672.1	1095.5	1224.1	1239.5	1266.9	1347.4	1400.6	1416.0
45°	114.8	140.6	444.0	620.6	1056.1	1177.7	1200.0	1237.8	1323.5	1374.9	1388.6
47.5°	104.5	128.6	390.9	567.4	1013.2	1131.5	1160.6	1203.4	1290.9	1340.6	1352.6
50°	96.0	116.6	337.7	510.9	966.8	1081.8	1116.0	1160.6	1249.8	1296.1	1311.5
52.5°	89.1	106.3	288.0	454.3	913.8	1030.3	1069.8	1116.0	1200.0	1244.6	1254.9
55°	82.3	97.7	245.1	394.3	858.9	975.5	1018.3	1062.9	1145.2	1182.9	1189.7
57.5°	78.9	90.8	209.2	337.7	800.6	913.8	961.7	1002.9	1080.0	1109.2	1116.0
60°	73.7	85.7	181.7	289.8	737.2	855.5	896.6	937.7	1002.9	1026.9	1032.0
62.5°	68.6	82.3	161.1	243.4	672.1	786.9	828.1	865.7	920.6	937.7	944.6
65°	65.2	78.9	145.7	209.2	605.2	714.9	756.1	788.6	833.2	850.3	853.7
67.5°	61.7	75.4	133.7	180.0	538.3	642.9	673.8	704.6	738.9	756.1	757.8
70°	56.6	72.0	123.5	159.4	469.7	560.6	586.3	618.9	646.3	654.8	660.0
72.5°	53.2	66.9	116.6	144.0	399.4	481.7	505.7	524.6	548.6	557.1	557.1
75°	48.0	60.0	109.7	128.6	327.4	394.3	414.8	433.8	452.6	456.0	450.9
77.5°	42.9	53.2	94.3	108.0	255.4	312.0	329.1	339.4	354.9	358.3	360.0
80°	36.0	46.3	73.7	84.0	185.1	229.7	241.7	250.3	264.0	264.0	267.4
82.5°	27.4	36.0	53.2	60.0	125.2	157.7	168.0	173.1	181.7	181.7	181.7
85°	17.1	22.3	34.3	39.4	75.4	96.0	102.8	104.5	111.4	113.1	113.1
87.5°	8.6	12.0	22.3	24.0	39.4	49.8	49.8	53.2	53.2	51.5	49.8
90°	10.6	19.2	27.6	29.7	46.8	69.4	80.8	71.8	53.8	40.4	40.4
92.5°	42.5	114.8	187.1	205.2	288.5	399.5	455.1	398.8	286.4	202.0	194.0
95°	102.1	234.4	366.7	399.8	709.8	1123.3	1330.0	1186.8	900.5	685.7	661.3
97.5°	176.4	293.2	409.9	439.1	956.1	1645.5	1990.2	1899.7	1718.7	1583.0	1536.8
100°	233.9	339.7	445.5	472.0	1045.7	1810.8	2193.3	2199.9	2213.2	2223.0	2167.9
102.5°	282.8	381.5	480.3	505.0	1086.9	1862.8	2250.7	2366.0	2596.6	2769.5	2722.2
105°	365.8	449.3	533.0	553.9	1117.4	1868.7	2244.3	2502.8	3019.7	3407.4	3382.0
107.5°	450.8	528.8	606.7	626.2	1123.0	1785.5	2116.7	2477.3	3198.3	3739.1	3745.2
110°	508.2	578.6	649.0	666.6	1114.5	1711.8	2010.4	2413.5	3219.5	3824.1	3850.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	564.5	631.7	698.7	715.5	1114.9	1647.4	1913.7	2326.2	3151.2	3769.9	3810.6
115°	649.6	711.5	773.4	788.9	1125.2	1573.6	1797.8	2195.2	2989.9	3586.0	3642.3
117.5°	733.6	789.8	846.0	860.1	1146.1	1527.4	1718.1	2076.7	2794.0	3331.9	3394.4
120°	782.5	835.4	888.4	901.6	1163.2	1511.9	1686.2	2013.9	2669.2	3160.7	3221.5
122.5°	830.4	883.8	937.1	950.5	1187.6	1503.7	1661.7	1956.8	2547.0	2989.6	3049.5
125°	903.7	952.4	1001.0	1013.2	1220.5	1497.0	1635.2	1885.8	2387.1	2763.1	2818.2
127.5°	963.2	1012.3	1061.5	1073.8	1253.5	1493.0	1612.8	1828.1	2258.5	2581.3	2627.8
130°	995.1	1048.0	1101.0	1114.2	1277.6	1495.4	1604.3	1795.9	2179.2	2466.5	2509.6
132.5°	1028.1	1081.0	1133.9	1147.1	1297.0	1496.9	1596.8	1768.3	2111.4	2368.7	2407.2
135°	1077.0	1125.2	1173.4	1185.4	1318.3	1495.5	1584.1	1727.8	2015.0	2230.5	2263.7
137.5°	1126.9	1174.7	1222.4	1234.3	1350.2	1504.7	1582.0	1703.4	1946.3	2128.5	2155.6
140°	1168.4	1212.4	1256.3	1267.3	1369.7	1506.3	1574.5	1679.4	1889.2	2046.6	2072.0
142.5°	1200.3	1240.9	1281.6	1291.7	1385.9	1511.6	1574.5	1666.7	1851.0	1989.2	2011.0
145°	1249.2	1284.6	1320.1	1328.9	1407.2	1511.7	1563.9	1639.2	1790.0	1903.0	1919.6
147.5°	1298.1	1332.6	1367.1	1375.7	1438.4	1522.1	1563.9	1623.2	1741.8	1830.8	1844.5
150°	1330.0	1361.2	1392.3	1400.2	1454.8	1527.6	1563.9	1614.0	1714.1	1789.3	1800.4
152.5°	1362.9	1386.5	1410.2	1416.1	1465.4	1531.0	1563.9	1606.7	1692.2	1756.3	1764.7
155°	1411.8	1429.3	1446.9	1451.2	1488.8	1538.9	1563.9	1597.9	1665.9	1717.0	1722.5
157.5°	1448.0	1465.0	1482.1	1486.3	1512.2	1546.7	1563.9	1590.3	1643.3	1683.0	1686.9
160°	1472.4	1485.7	1498.9	1502.2	1522.8	1550.2	1563.9	1586.6	1631.9	1665.9	1668.1
162.5°	1496.9	1506.8	1516.7	1519.2	1534.1	1554.0	1563.9	1583.0	1621.3	1650.0	1652.1
165°	1523.5	1532.4	1541.4	1543.7	1550.4	1559.4	1563.9	1577.6	1605.0	1625.5	1627.7
167.5°	1547.9	1552.2	1556.4	1557.5	1563.2	1570.7	1574.5	1583.5	1601.5	1615.0	1615.9
170°	1563.9	1568.2	1572.5	1573.5	1573.8	1574.2	1574.5	1583.5	1601.5	1615.0	1615.0
172.5°	1572.4	1573.3	1574.2	1574.5	1574.5	1574.5	1574.5	1581.6	1595.8	1606.4	1605.6
175°	1584.1	1584.1	1584.1	1584.1	1580.9	1576.6	1574.5	1579.0	1588.0	1594.7	1594.7
177.5°	1584.1	1584.1	1584.1	1584.1	1581.7	1578.3	1576.6	1580.2	1587.3	1592.6	1591.6
180°	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	533.2	533.2
2.5°	569.1	565.7
5°	732.0	735.4
7.5°	985.8	984.1
10°	1225.8	1241.2
12.5°	1400.6	1404.0
15°	1506.9	1513.7
17.5°	1548.1	1549.8
20°	1549.8	1546.4
22.5°	1530.9	1527.5
25°	1508.6	1506.9
27.5°	1488.0	1489.8
30°	1479.5	1484.6
32.5°	1479.5	1488.0
35°	1482.9	1491.5
37.5°	1481.2	1491.5
40°	1474.3	1486.3
42.5°	1455.5	1464.1
45°	1426.3	1436.6
47.5°	1388.6	1395.5
50°	1340.6	1347.4
52.5°	1280.6	1282.3
55°	1208.6	1215.5
57.5°	1131.5	1133.2
60°	1045.7	1050.9
62.5°	954.9	954.9
65°	858.9	862.3
67.5°	759.5	768.0
70°	658.3	660.0
72.5°	558.9	558.9
75°	456.0	457.7
77.5°	358.3	358.3
80°	265.7	267.4
82.5°	183.4	186.8
85°	114.8	114.8
87.5°	53.2	48.0
90°	40.4	40.4
92.5°	161.8	129.7
95°	564.0	466.7
97.5°	1351.5	1166.3
100°	1947.2	1726.6
102.5°	2533.3	2344.3
105°	3280.4	3178.8
107.5°	3769.8	3794.4
110°	3956.4	4062.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3973.1	4135.7
115°	3867.7	4093.1
117.5°	3644.3	3894.3
120°	3464.3	3707.2
122.5°	3289.0	3528.6
125°	3038.9	3259.6
127.5°	2814.1	3000.2
130°	2681.5	2853.5
132.5°	2561.3	2715.3
135°	2396.4	2529.2
137.5°	2264.3	2373.0
140°	2173.6	2275.2
142.5°	2098.4	2185.8
145°	1985.8	2051.9
147.5°	1899.3	1954.1
150°	1844.8	1889.2
152.5°	1798.2	1831.8
155°	1744.7	1767.0
157.5°	1702.5	1718.1
160°	1677.2	1686.2
162.5°	1660.6	1669.2
165°	1636.8	1645.7
167.5°	1619.7	1623.4
170°	1615.0	1615.0
172.5°	1602.3	1598.9
175°	1594.7	1594.7
177.5°	1587.9	1584.1
180°	1584.1	1584.1



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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	0.38	1.09	1.49	2.21	3.75	13.57	14.28	14.68	15.40	16.94
	3H	1.07	1.71	2.19	2.83	4.39	15.40	16.04	16.52	17.17	18.73
	4H	1.36	1.97	2.49	3.09	4.66	16.04	16.65	17.18	17.78	19.34
	6H	1.60	2.17	2.75	3.29	4.87	16.47	17.03	17.61	18.16	19.73
	8H	1.67	2.20	2.81	3.34	4.91	16.59	17.12	17.73	18.26	19.83
	12H	1.68	2.19	2.83	3.32	4.92	16.65	17.16	17.80	18.30	19.89
4H	2H	7.58	8.19	8.72	9.31	10.88	13.82	14.43	14.96	15.56	17.12
	3H	9.13	9.65	10.28	10.79	12.37	15.86	16.37	17.01	17.52	19.10
	4H	9.22	9.69	10.37	10.83	12.43	16.62	17.09	17.77	18.23	19.83
	6H	9.22	9.63	10.38	10.79	12.38	17.16	17.56	18.31	18.72	20.31
	8H	9.20	9.57	10.35	10.73	12.33	17.32	17.70	18.48	18.85	20.45
	12H	9.15	9.49	10.32	10.65	12.26	17.41	17.75	18.58	18.91	20.52
8H	4H	10.66	11.03	11.81	12.19	13.79	16.67	17.05	17.83	18.20	19.80
	6H	10.89	11.20	12.07	12.40	14.00	17.30	17.61	18.47	18.80	20.40
	8H	10.91	11.18	12.09	12.35	13.97	17.52	17.79	18.70	18.96	20.58
	12H	10.87	11.11	12.06	12.28	13.93	17.66	17.90	18.85	19.07	20.72
12H	4H	10.79	11.14	11.97	12.30	13.91	16.62	16.96	17.79	18.12	19.73
	6H	11.15	11.42	12.33	12.60	14.22	17.28	17.55	18.46	18.72	20.35
	8H	11.21	11.45	12.40	12.62	14.28	17.50	17.74	18.69	18.91	20.57