

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: P938487

Luminaire Tested: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-6-2700K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938487  
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-B2750-1D-UNV-STD-W-6-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

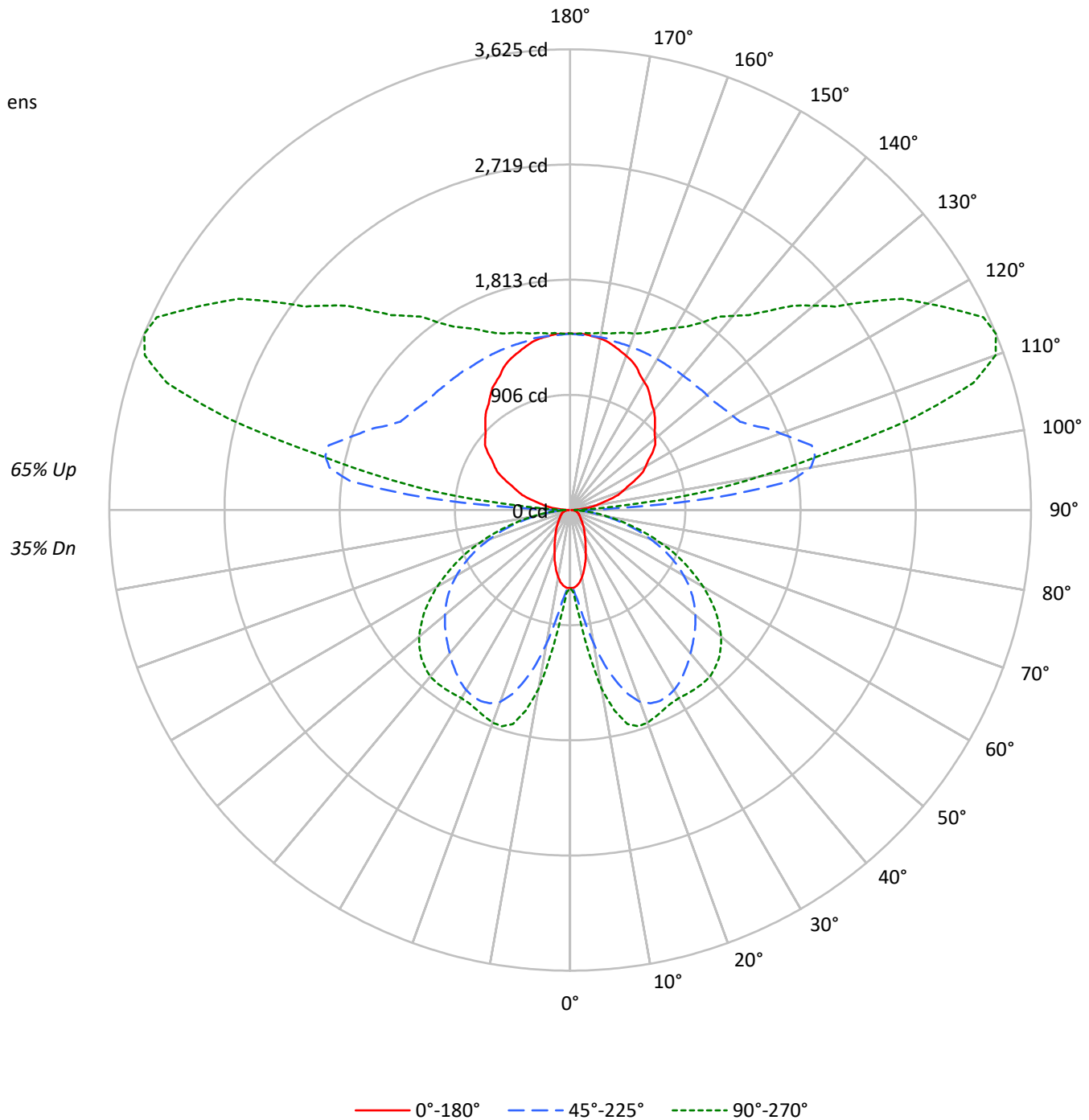
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13754.8 lumens  
Efficiency: N/A  
Efficacy: 126.7 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 (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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CATALOG NUMBER: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-6-2700K

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

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

	0°	45°	90°
0°	3797	3797	3797
5°	3709	4388	5104
10°	3362	6395	8462
15°	2857	8353	10218
20°	2325	9677	10414
25°	1939	10124	10202
30°	1634	10185	10183
35°	1444	10014	10447
40°	1258	9791	10718
45°	1138	9628	10760
50°	1044	9479	10583
55°	998	9264	10113
60°	1021	8853	9372
65°	1060	8230	8354
70°	1126	7173	7058
75°	1244	5843	5508
80°	1347	4047	3712
85°	1175	2143	1900

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10760 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.4	0.6
10°-20°	351.9	2.6
20°-30°	615.6	4.5
30°-40°	792.4	5.8
40°-50°	885.1	6.4
50°-60°	847.8	6.2
60°-70°	671.8	4.9
70°-80°	395.1	2.9
80°-90°	115.1	0.8
90°-100°	676.8	4.9
100°-110°	1779.3	12.9
110°-120°	1844.9	13.4
120°-130°	1479.9	10.8
130°-140°	1161.2	8.4
140°-150°	891.2	6.5
150°-160°	641.8	4.7
160°-170°	392.7	2.9
170°-180°	132.7	1.0
0°-30°	1046.9	7.6
0°-40°	1839.4	13.4
0°-60°	3572.3	26.0
0°-90°	4754.3	34.6
90°-120°	4301.0	31.3
90°-150°	7833.3	56.9
90°-180°	9001.0	65.4
0°-180°	13754.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	598	642	722	817	847	55
15°	448	827	1394	1690	1743	125
25°	286	938	1660	1733	1735	132
35°	193	896	1563	1652	1717	121
45°	132	714	1382	1583	1654	102
55°	95	454	1172	1362	1400	86
65°	75	241	870	979	993	74
75°	55	148	478	525	527	58
85°	20	45	118	130	132	21
90°	9	26	71	36	36	9
95°	89	350	1166	601	409	99
105°	320	486	1967	2986	2786	340
115°	569	691	1576	3143	3588	562
125°	792	888	1433	2422	2857	703
135°	944	1039	1388	1955	2217	730
145°	1095	1165	1371	1668	1798	686
155°	1237	1272	1371	1505	1549	569
165°	1335	1353	1371	1425	1442	377
175°	1388	1388	1380	1398	1398	132
180°	1388	1388	1388	1388	1388	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8
2.5°	613.8	613.8	617.8	619.8	623.7	625.7	629.7	633.7	645.4	647.4	651.4
5°	598.1	606.0	631.7	641.5	669.1	706.7	722.4	748.1	801.4	817.2	827.1
7.5°	574.4	592.1	655.4	671.1	740.2	838.9	880.4	935.6	1020.5	1061.9	1095.5
10°	536.8	574.4	686.9	724.4	836.9	986.9	1063.9	1140.9	1269.2	1326.5	1348.2
12.5°	495.4	556.7	720.5	771.8	933.7	1152.8	1245.5	1330.4	1476.5	1553.5	1565.3
15°	448.1	531.0	752.1	827.1	1036.2	1290.9	1393.6	1498.2	1634.3	1689.6	1703.5
17.5°	406.7	511.2	781.7	860.6	1115.2	1415.3	1519.9	1606.7	1717.3	1754.8	1764.6
20°	355.3	479.7	801.4	904.1	1198.2	1506.1	1606.7	1673.9	1748.9	1772.6	1776.5
22.5°	317.8	446.1	813.2	919.8	1253.4	1561.3	1646.2	1699.5	1750.9	1758.7	1760.7
25°	286.3	408.6	811.2	937.6	1300.8	1594.9	1660.0	1699.5	1729.2	1733.0	1733.0
27.5°	256.6	367.1	803.4	941.5	1336.3	1602.8	1654.1	1681.7	1695.6	1703.5	1703.5
30°	231.0	327.7	783.7	933.7	1352.1	1594.9	1636.3	1650.2	1664.0	1675.8	1681.7
32.5°	211.3	290.1	754.0	917.8	1354.1	1575.2	1604.8	1612.6	1632.3	1660.0	1669.9
35°	193.4	252.7	720.5	896.1	1342.2	1543.6	1563.3	1571.2	1610.6	1652.2	1665.9
37.5°	175.7	225.0	677.1	858.7	1324.5	1506.1	1519.9	1533.7	1594.9	1644.2	1660.0
40°	157.9	201.3	625.7	817.2	1296.8	1460.6	1472.5	1494.2	1575.2	1632.3	1648.2
42.5°	144.1	181.6	570.4	773.8	1261.3	1409.3	1427.1	1458.6	1551.5	1612.6	1630.5
45°	132.3	161.8	511.2	714.5	1215.9	1356.1	1381.8	1425.2	1523.8	1583.0	1598.9
47.5°	120.4	148.0	450.1	653.4	1166.5	1302.8	1336.3	1385.6	1486.3	1543.6	1557.3
50°	110.6	134.3	388.8	588.2	1113.2	1245.5	1285.0	1336.3	1438.9	1492.2	1510.0
52.5°	102.7	122.4	331.6	523.1	1052.1	1186.3	1231.7	1285.0	1381.8	1433.0	1444.9
55°	94.7	112.5	282.3	454.0	988.9	1123.1	1172.5	1223.8	1318.5	1361.9	1369.9
57.5°	90.8	104.6	240.8	388.8	921.8	1052.1	1107.4	1154.8	1243.5	1277.1	1285.0
60°	84.9	98.7	209.3	333.6	848.8	984.9	1032.4	1079.7	1154.8	1182.4	1188.2
62.5°	79.0	94.7	185.6	280.3	773.8	906.0	953.4	996.8	1059.9	1079.7	1087.6
65°	75.0	90.8	167.8	240.8	696.8	823.1	870.5	908.0	959.3	979.1	983.0
67.5°	71.0	86.9	154.0	207.3	619.8	740.2	775.7	811.2	850.8	870.5	872.5
70°	65.1	82.9	142.1	183.6	540.8	645.4	675.1	712.5	744.1	754.0	759.9
72.5°	61.2	77.0	134.3	165.8	460.0	554.7	582.3	604.0	631.7	641.5	641.5
75°	55.3	69.1	126.3	148.0	377.0	454.0	477.7	499.4	521.1	525.1	519.1
77.5°	49.3	61.2	108.6	124.4	294.1	359.3	379.0	390.8	408.6	412.5	414.5
80°	41.4	53.3	84.9	96.7	213.1	264.5	278.3	288.1	304.0	304.0	308.0
82.5°	31.6	41.4	61.2	69.1	144.1	181.6	193.4	199.4	209.3	209.3	209.3
85°	19.7	25.7	39.4	45.4	86.9	110.6	118.4	120.4	128.3	130.3	130.3
87.5°	9.9	13.8	25.7	27.6	45.4	57.3	57.3	61.2	61.2	59.3	57.3
90°	9.4	16.8	24.2	26.1	41.0	60.9	70.8	62.9	47.2	35.5	35.5
92.5°	37.3	100.6	164.0	179.9	252.9	350.2	398.8	349.5	251.0	177.1	170.0
95°	89.4	205.4	321.4	350.4	622.2	984.5	1165.7	1040.2	789.2	601.0	579.7
97.5°	154.7	257.0	359.3	384.9	838.0	1442.3	1744.4	1665.1	1506.4	1387.5	1346.9
100°	205.0	297.8	390.5	413.7	916.6	1587.1	1922.4	1928.2	1939.8	1948.5	1900.2
102.5°	247.9	334.5	421.0	442.6	952.7	1632.6	1972.7	2073.7	2275.8	2427.4	2385.9
105°	320.5	393.8	467.1	485.5	979.4	1637.8	1967.1	2193.6	2646.7	2986.5	2964.2
107.5°	395.1	463.4	531.8	548.8	984.2	1564.9	1855.2	2171.3	2803.2	3277.2	3282.6
110°	445.4	507.2	568.8	584.3	976.9	1500.3	1762.0	2115.3	2821.9	3351.7	3374.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	494.8	553.6	612.3	627.1	977.2	1443.9	1677.3	2038.8	2761.9	3304.2	3339.9
115°	569.3	623.6	677.9	691.4	986.1	1379.2	1575.7	1924.0	2620.6	3143.0	3192.4
117.5°	642.9	692.2	741.5	753.9	1004.6	1338.7	1505.9	1820.2	2448.8	2920.3	2975.1
120°	685.8	732.3	778.7	790.2	1019.4	1325.1	1477.9	1765.1	2339.5	2770.3	2823.5
122.5°	727.8	774.6	821.4	833.1	1040.8	1317.9	1456.5	1715.1	2232.3	2620.3	2672.8
125°	792.0	834.6	877.4	888.0	1069.7	1312.0	1433.1	1652.9	2092.2	2421.8	2470.1
127.5°	844.2	887.2	930.4	941.1	1098.6	1308.5	1413.5	1602.2	1979.5	2262.4	2303.2
130°	872.2	918.6	965.0	976.6	1119.8	1310.7	1406.2	1574.1	1909.9	2161.8	2199.5
132.5°	901.1	947.5	993.9	1005.5	1136.8	1312.0	1399.6	1549.9	1850.6	2076.1	2109.8
135°	943.9	986.1	1028.5	1039.0	1155.5	1310.7	1388.4	1514.3	1766.1	1954.9	1984.0
137.5°	987.7	1029.6	1071.4	1081.9	1183.4	1318.8	1386.5	1493.0	1705.8	1865.5	1889.3
140°	1024.1	1062.6	1101.1	1110.7	1200.5	1320.2	1380.1	1472.0	1655.8	1793.8	1816.0
142.5°	1052.0	1087.6	1123.3	1132.2	1214.8	1325.0	1380.1	1460.8	1622.3	1743.4	1762.5
145°	1094.9	1126.0	1157.1	1164.8	1233.4	1325.0	1370.7	1436.7	1568.9	1668.0	1682.4
147.5°	1137.7	1168.0	1198.2	1205.8	1260.7	1334.0	1370.7	1422.7	1526.6	1604.6	1616.6
150°	1165.7	1193.0	1220.3	1227.2	1275.0	1338.8	1370.7	1414.6	1502.4	1568.2	1578.0
152.5°	1194.6	1215.3	1236.0	1241.2	1284.3	1341.9	1370.7	1408.1	1483.1	1539.3	1546.7
155°	1237.4	1252.8	1268.1	1271.9	1304.9	1348.8	1370.7	1400.5	1460.1	1504.9	1509.7
157.5°	1269.1	1284.0	1299.0	1302.7	1325.4	1355.6	1370.7	1393.9	1440.3	1475.1	1478.5
160°	1290.6	1302.2	1313.7	1316.6	1334.6	1358.6	1370.7	1390.6	1430.4	1460.1	1462.1
162.5°	1312.0	1320.7	1329.4	1331.6	1344.6	1362.0	1370.7	1387.4	1421.0	1446.2	1448.1
165°	1335.3	1343.2	1351.0	1353.0	1358.8	1366.7	1370.7	1382.7	1406.8	1424.8	1426.8
167.5°	1356.8	1360.4	1364.2	1365.1	1370.1	1376.8	1380.1	1387.9	1403.7	1415.4	1416.2
170°	1370.7	1374.4	1378.2	1379.1	1379.4	1379.9	1380.1	1387.9	1403.7	1415.4	1415.4
172.5°	1378.2	1379.0	1379.9	1380.1	1380.1	1380.1	1380.1	1386.2	1398.7	1407.9	1407.2
175°	1388.4	1388.4	1388.4	1388.4	1385.6	1382.0	1380.1	1383.9	1391.8	1397.7	1397.7
177.5°	1388.4	1388.4	1388.4	1388.4	1386.2	1383.3	1381.9	1384.9	1391.2	1395.9	1395.1
180°	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	613.8	613.8
2.5°	655.4	651.4
5°	842.8	846.8
7.5°	1134.9	1133.0
10°	1411.3	1429.1
12.5°	1612.6	1616.6
15°	1735.0	1742.9
17.5°	1782.4	1784.3
20°	1784.3	1780.4
22.5°	1762.6	1758.7
25°	1737.0	1735.0
27.5°	1713.3	1715.3
30°	1703.5	1709.3
32.5°	1703.5	1713.3
35°	1707.4	1717.3
37.5°	1705.5	1717.3
40°	1697.5	1711.3
42.5°	1675.8	1685.7
45°	1642.3	1654.1
47.5°	1598.9	1606.7
50°	1543.6	1551.5
52.5°	1474.5	1476.5
55°	1391.6	1399.5
57.5°	1302.8	1304.8
60°	1204.1	1209.9
62.5°	1099.5	1099.5
65°	988.9	992.8
67.5°	874.4	884.2
70°	758.0	759.9
72.5°	643.5	643.5
75°	525.1	527.0
77.5°	412.5	412.5
80°	306.0	308.0
82.5°	211.3	215.1
85°	132.3	132.3
87.5°	61.2	55.3
90°	35.5	35.5
92.5°	141.8	113.6
95°	494.3	409.1
97.5°	1184.5	1022.2
100°	1706.7	1513.3
102.5°	2220.3	2054.6
105°	2875.2	2786.1
107.5°	3304.1	3325.6
110°	3467.7	3560.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3482.3	3624.7
115°	3389.9	3587.5
117.5°	3194.2	3413.3
120°	3036.4	3249.3
122.5°	2882.7	3092.7
125°	2663.5	2856.9
127.5°	2466.4	2629.6
130°	2350.3	2501.0
132.5°	2244.8	2379.8
135°	2100.5	2216.8
137.5°	1984.6	2079.8
140°	1905.0	1994.1
142.5°	1839.2	1915.8
145°	1740.4	1798.4
147.5°	1664.6	1712.7
150°	1616.9	1655.8
152.5°	1576.1	1605.6
155°	1529.2	1548.7
157.5°	1492.2	1505.9
160°	1470.0	1477.9
162.5°	1455.5	1462.9
165°	1434.5	1442.4
167.5°	1419.6	1422.9
170°	1415.4	1415.4
172.5°	1404.4	1401.5
175°	1397.7	1397.7
177.5°	1391.7	1388.4
180°	1388.4	1388.4



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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	4.03	4.79	5.10	5.87	7.34	17.19	17.96	18.27	19.03	20.51
	3H	4.73	5.41	5.81	6.50	7.99	19.02	19.70	20.10	20.79	22.28
	4H	5.02	5.67	6.11	6.76	8.26	19.66	20.31	20.75	21.39	22.89
	6H	5.27	5.86	6.37	6.96	8.46	20.08	20.68	21.18	21.77	23.28
	8H	5.33	5.90	6.44	7.01	8.51	20.19	20.76	21.30	21.87	23.37
	12H	5.34	5.89	6.46	6.99	8.51	20.26	20.80	21.37	21.90	23.43
4H	2H	11.22	11.87	12.32	12.96	14.46	17.46	18.11	18.56	19.19	20.69
	3H	12.78	13.33	13.89	14.44	15.95	19.49	20.03	20.59	21.15	22.66
	4H	12.87	13.37	13.98	14.48	16.01	20.25	20.75	21.36	21.85	23.38
	6H	12.88	13.31	14.00	14.43	15.96	20.78	21.20	21.89	22.33	23.85
	8H	12.85	13.25	13.97	14.37	15.91	20.93	21.33	22.05	22.45	23.99
	12H	12.80	13.17	13.94	14.30	15.84	21.02	21.38	22.16	22.51	24.06
8H	4H	14.31	14.71	15.42	15.83	17.37	20.30	20.70	21.42	21.82	23.36
	6H	14.54	14.87	15.68	16.04	17.57	20.92	21.25	22.06	22.41	23.95
	8H	14.56	14.85	15.71	15.99	17.55	21.13	21.42	22.28	22.57	24.12
	12H	14.52	14.78	15.67	15.92	17.51	21.27	21.53	22.42	22.67	24.26
12H	4H	14.44	14.81	15.58	15.94	17.48	20.25	20.61	21.38	21.74	23.29
	6H	14.80	15.09	15.95	16.23	17.79	20.90	21.19	22.05	22.33	23.89
	8H	14.86	15.12	16.02	16.26	17.85	21.12	21.38	22.27	22.52	24.11