

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: P938366

Luminaire Tested: SQ4-FB-150U-075D-93050-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

**Test Information**

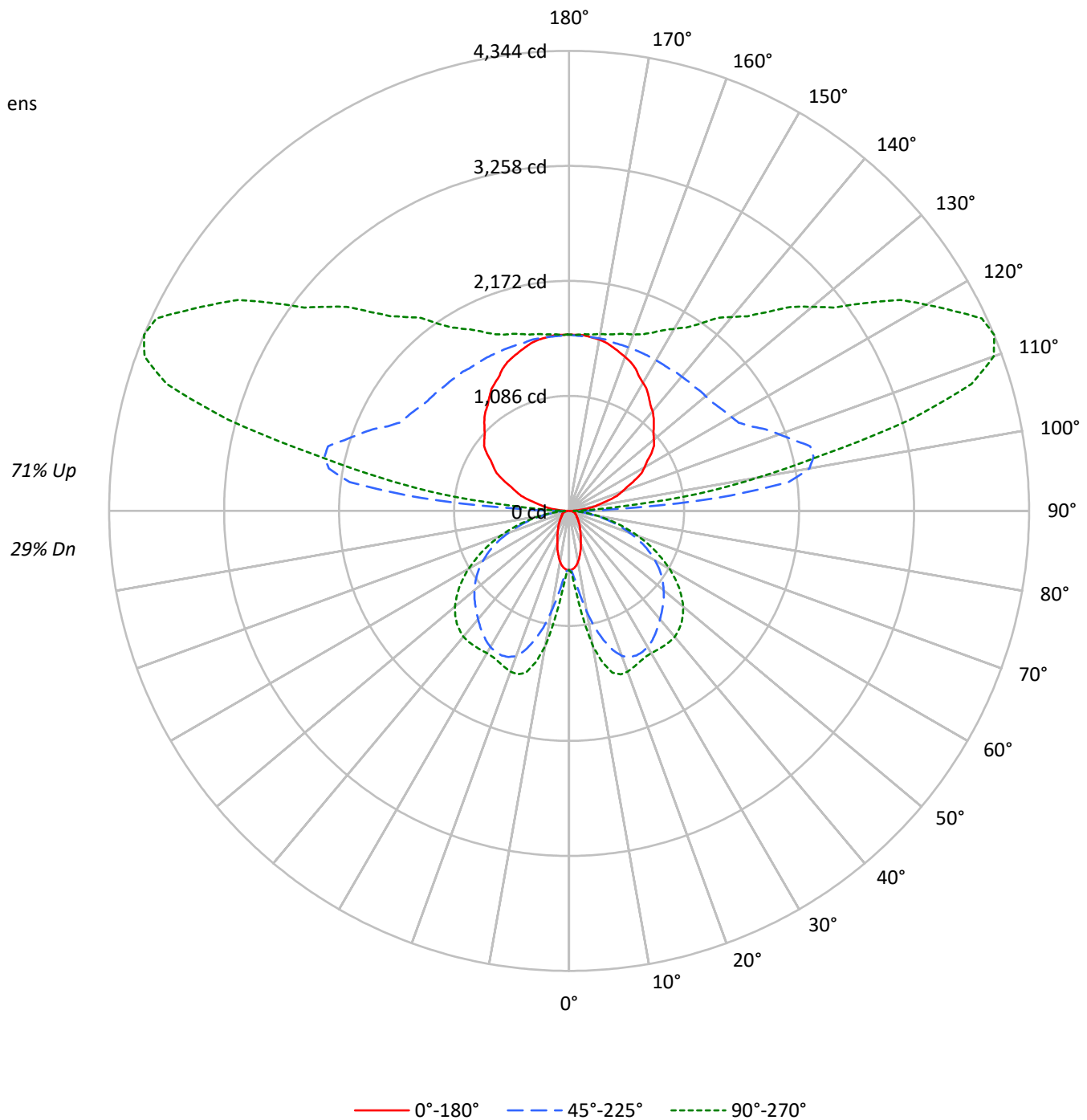
Test Method: LM-79-2019  
Report Number: P938366  
REPORT IS A COMBINATION OF REPORTS P933646 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-075D-93050-1D-UNV-STD-W-8-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15102.1 lumens  
Efficiency: N/A  
Efficacy: 118.7 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: Semi-Indirect  
  
Input Watts (W): 127.2  
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				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	36	36	36	36	36	36	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	30	30	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	25	25	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	21	21	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	17	17	17	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	15	15	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	13	13	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	11	11	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	10	10	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	9	9	9	6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	8	8	8	6

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

	0°	45°	90°
0°	2584	2584	2584
5°	2524	2986	3473
10°	2289	4353	5758
15°	1946	5688	6953
20°	1584	6591	7086
25°	1321	6897	6942
30°	1114	6941	6929
35°	985	6826	7108
40°	858	6676	7293
45°	778	6566	7321
50°	713	6467	7200
55°	683	6323	6881
60°	699	6045	6377
65°	727	5623	5685
70°	775	4903	4802
75°	858	3998	3748
80°	938	2773	2525
85°	834	1470	1293

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7321 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.0	0.5
10°-20°	319.3	2.1
20°-30°	558.5	3.7
30°-40°	718.9	4.8
40°-50°	803.0	5.3
50°-60°	769.1	5.1
60°-70°	609.5	4.0
70°-80°	358.4	2.4
80°-90°	105.9	0.7
90°-100°	811.2	5.4
100°-110°	2132.6	14.1
110°-120°	2211.2	14.6
120°-130°	1773.7	11.7
130°-140°	1391.7	9.2
140°-150°	1068.2	7.1
150°-160°	769.3	5.1
160°-170°	470.7	3.1
170°-180°	159.0	1.1
0°-30°	949.8	6.3
0°-40°	1668.7	11.0
0°-60°	3240.8	21.5
0°-90°	4314.6	28.6
90°-120°	5155.0	34.1
90°-150°	9388.5	62.2
90°-180°	10788.0	71.4
0°-180°	15102.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	557	557	557	557	557	
5°	543	582	655	741	768	50
15°	406	750	1264	1533	1581	113
25°	260	850	1506	1572	1574	120
35°	176	813	1418	1499	1558	110
45°	120	648	1254	1436	1501	93
55°	86	412	1064	1236	1270	78
65°	68	218	790	888	901	67
75°	50	134	433	476	478	52
85°	18	41	107	118	120	19
90°	11	31	85	42	42	10
95°	107	420	1397	720	490	119
105°	384	582	2358	3580	3339	407
115°	682	829	1889	3767	4300	674
125°	949	1064	1718	2903	3424	843
135°	1131	1245	1664	2343	2657	875
145°	1312	1396	1643	1999	2156	822
155°	1483	1524	1643	1804	1856	681
165°	1600	1622	1643	1708	1729	452
175°	1664	1664	1654	1675	1675	158
180°	1664	1664	1664	1664	1664	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	556.9	556.9	556.9	556.9	556.9	556.9	556.9	556.9	556.9	556.9	556.9
2.5°	556.9	556.9	560.5	562.3	565.8	567.6	571.2	574.8	585.5	587.3	590.9
5°	542.6	549.7	573.0	582.0	607.0	641.0	655.4	678.6	727.0	741.3	750.3
7.5°	521.1	537.2	594.5	608.8	671.5	761.0	798.6	848.8	925.8	963.4	993.8
10°	487.0	521.1	623.1	657.2	759.2	895.3	965.1	1035.1	1151.5	1203.4	1223.1
12.5°	449.4	505.0	653.6	700.1	847.0	1045.8	1130.0	1207.0	1339.5	1409.3	1420.1
15°	406.5	481.7	682.2	750.3	940.1	1171.2	1264.3	1359.2	1482.7	1532.9	1545.4
17.5°	368.9	463.8	709.1	780.7	1011.7	1284.0	1378.9	1457.7	1557.9	1592.0	1600.9
20°	322.3	435.1	727.0	820.1	1087.0	1366.3	1457.7	1518.5	1586.6	1608.1	1611.7
22.5°	288.3	404.7	737.7	834.4	1137.1	1416.5	1493.5	1541.8	1588.4	1595.5	1597.3
25°	259.6	370.7	735.9	850.5	1180.1	1446.9	1506.0	1541.8	1568.7	1572.3	1572.3
27.5°	232.8	333.1	728.8	854.1	1212.3	1454.1	1500.6	1525.7	1538.2	1545.4	1545.4
30°	209.5	297.2	710.9	847.0	1226.7	1446.9	1484.5	1497.1	1509.6	1520.3	1525.7
32.5°	191.6	263.2	684.0	832.6	1228.5	1429.0	1455.9	1463.0	1480.9	1506.0	1515.0
35°	175.5	229.2	653.6	812.9	1217.7	1400.4	1418.3	1425.4	1461.2	1498.8	1511.4
37.5°	159.4	204.1	614.2	778.9	1201.6	1366.3	1378.9	1391.4	1446.9	1491.7	1506.0
40°	143.2	182.6	567.6	741.3	1176.5	1325.2	1335.9	1355.6	1429.0	1480.9	1495.3
42.5°	130.7	164.7	517.5	701.9	1144.3	1278.6	1294.7	1323.4	1407.5	1463.0	1479.1
45°	120.0	146.8	463.8	648.2	1103.1	1230.2	1253.5	1292.9	1382.5	1436.2	1450.5
47.5°	109.2	134.3	408.3	592.7	1058.3	1181.9	1212.3	1257.1	1348.4	1400.4	1412.9
50°	100.3	121.8	352.8	533.6	1009.9	1130.0	1165.8	1212.3	1305.5	1353.8	1369.9
52.5°	93.1	111.0	300.8	474.5	954.4	1076.3	1117.4	1165.8	1253.5	1300.1	1310.8
55°	85.9	102.1	256.1	411.8	897.1	1019.0	1063.7	1110.3	1196.2	1235.6	1242.8
57.5°	82.4	94.9	218.5	352.8	836.2	954.4	1004.5	1047.6	1128.2	1158.6	1165.8
60°	77.0	89.5	189.8	302.6	770.0	893.5	936.5	979.5	1047.6	1072.7	1078.0
62.5°	71.6	85.9	168.3	254.3	701.9	821.9	864.9	904.3	961.6	979.5	986.6
65°	68.0	82.4	152.2	218.5	632.1	746.7	789.7	823.7	870.2	888.1	891.7
67.5°	64.5	78.8	139.7	188.0	562.3	671.5	703.7	735.9	771.8	789.7	791.5
70°	59.1	75.2	128.9	166.5	490.6	585.5	612.4	646.4	675.1	684.0	689.4
72.5°	55.5	69.8	121.8	150.4	417.2	503.2	528.2	547.9	573.0	582.0	582.0
75°	50.1	62.7	114.6	134.3	342.0	411.8	433.3	453.0	472.7	476.3	470.9
77.5°	44.8	55.5	98.5	112.8	266.8	325.9	343.8	354.5	370.7	374.2	376.0
80°	37.6	48.3	77.0	87.7	193.4	239.9	252.5	261.4	275.8	275.8	279.3
82.5°	28.6	37.6	55.5	62.7	130.7	164.7	175.5	180.9	189.8	189.8	189.8
85°	17.9	23.3	35.8	41.2	78.8	100.3	107.4	109.2	116.4	118.2	118.2
87.5°	9.0	12.5	23.3	25.1	41.2	51.9	51.9	55.5	55.5	53.7	51.9
90°	11.2	20.1	29.0	31.2	49.2	73.0	84.9	75.5	56.6	42.4	42.4
92.5°	44.7	120.6	196.6	215.6	303.1	419.7	478.0	418.9	300.8	212.2	203.8
95°	107.3	246.2	385.2	419.9	745.6	1179.9	1397.1	1246.7	946.0	720.4	694.8
97.5°	185.4	308.0	430.6	461.3	1004.5	1728.7	2090.7	1995.7	1805.6	1663.0	1614.3
100°	245.7	356.9	468.1	495.9	1098.6	1902.2	2304.0	2311.0	2324.9	2335.2	2277.3
102.5°	297.1	400.8	504.5	530.5	1141.8	1956.8	2364.3	2485.5	2727.7	2909.3	2859.7
105°	384.2	472.0	559.9	581.9	1173.8	1963.0	2357.6	2629.2	3172.2	3579.5	3552.8
107.5°	473.5	555.5	637.3	657.8	1179.8	1875.7	2223.6	2602.3	3359.8	3927.9	3934.4
110°	533.9	607.8	681.8	700.2	1170.8	1798.2	2112.0	2535.3	3382.1	4017.3	4045.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	593.1	663.5	734.0	751.6	1171.2	1730.5	2010.2	2443.6	3310.2	3960.2	4002.9
115°	682.4	747.4	812.4	828.7	1182.0	1653.0	1888.6	2306.0	3140.8	3767.0	3826.2
117.5°	770.6	829.7	888.8	903.5	1203.9	1604.5	1804.8	2181.5	2935.0	3500.1	3565.8
120°	822.0	877.6	933.2	947.1	1221.8	1588.1	1771.3	2115.5	2804.0	3320.4	3384.1
122.5°	872.2	928.3	984.4	998.5	1247.5	1579.6	1745.6	2055.5	2675.6	3140.5	3203.4
125°	949.3	1000.4	1051.5	1064.3	1282.1	1572.4	1717.7	1981.0	2507.6	2902.6	2960.5
127.5°	1011.9	1063.5	1115.1	1128.0	1316.7	1568.4	1694.2	1920.3	2372.5	2711.6	2760.5
130°	1045.4	1101.0	1156.6	1170.4	1342.1	1570.8	1685.2	1886.5	2289.1	2591.0	2636.2
132.5°	1080.0	1135.6	1191.2	1205.1	1362.6	1572.5	1677.5	1857.6	2218.0	2488.3	2528.7
135°	1131.3	1182.0	1232.7	1245.3	1384.9	1571.0	1664.0	1815.0	2116.8	2343.1	2377.9
137.5°	1183.9	1234.0	1284.1	1296.6	1418.4	1580.7	1661.9	1789.5	2044.5	2235.9	2264.4
140°	1227.4	1273.6	1319.7	1331.2	1438.9	1582.3	1654.0	1764.2	1984.6	2149.9	2176.6
142.5°	1260.9	1303.6	1346.3	1356.9	1456.0	1588.0	1654.0	1750.8	1944.3	2089.6	2112.5
145°	1312.3	1349.5	1386.7	1396.1	1478.3	1588.0	1642.8	1722.0	1880.3	1999.1	2016.5
147.5°	1363.6	1399.9	1436.2	1445.2	1511.1	1598.9	1642.8	1705.1	1829.7	1923.1	1937.5
150°	1397.1	1429.9	1462.7	1470.8	1528.1	1604.6	1642.8	1695.5	1800.7	1879.6	1891.3
152.5°	1431.8	1456.6	1481.5	1487.7	1539.4	1608.3	1642.8	1687.8	1777.6	1845.0	1853.7
155°	1483.2	1501.5	1519.9	1524.4	1563.9	1616.5	1642.8	1678.5	1750.1	1803.7	1809.5
157.5°	1521.1	1539.0	1556.9	1561.3	1588.5	1624.7	1642.8	1670.7	1726.3	1768.0	1772.1
160°	1546.8	1560.7	1574.6	1578.1	1599.7	1628.4	1642.8	1666.6	1714.3	1750.1	1752.4
162.5°	1572.5	1582.9	1593.4	1596.0	1611.6	1632.4	1642.8	1663.0	1703.2	1733.3	1735.6
165°	1600.4	1609.8	1619.3	1621.6	1628.7	1638.1	1642.8	1657.2	1686.1	1707.6	1710.0
167.5°	1626.1	1630.5	1635.0	1636.2	1642.1	1650.1	1654.0	1663.4	1682.3	1696.4	1697.4
170°	1642.8	1647.3	1651.8	1652.9	1653.3	1653.7	1654.0	1663.4	1682.3	1696.4	1696.4
172.5°	1651.8	1652.7	1653.7	1654.0	1654.0	1654.0	1654.0	1661.4	1676.3	1687.5	1686.6
175°	1664.0	1664.0	1664.0	1664.0	1660.7	1656.2	1654.0	1658.7	1668.1	1675.2	1675.2
177.5°	1664.0	1664.0	1664.0	1664.0	1661.4	1657.9	1656.2	1660.0	1667.4	1673.0	1672.0
180°	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	556.9	556.9
2.5°	594.5	590.9
5°	764.6	768.2
7.5°	1029.7	1027.9
10°	1280.4	1296.5
12.5°	1463.0	1466.6
15°	1574.0	1581.2
17.5°	1617.0	1618.8
20°	1618.8	1615.2
22.5°	1599.1	1595.5
25°	1575.8	1574.0
27.5°	1554.4	1556.1
30°	1545.4	1550.8
32.5°	1545.4	1554.4
35°	1549.0	1557.9
37.5°	1547.2	1557.9
40°	1540.0	1552.6
42.5°	1520.3	1529.3
45°	1489.9	1500.6
47.5°	1450.5	1457.7
50°	1400.4	1407.5
52.5°	1337.7	1339.5
55°	1262.5	1269.6
57.5°	1181.9	1183.7
60°	1092.4	1097.7
62.5°	997.4	997.4
65°	897.1	900.7
67.5°	793.2	802.2
70°	687.6	689.4
72.5°	583.7	583.7
75°	476.3	478.1
77.5°	374.2	374.2
80°	277.5	279.3
82.5°	191.6	195.2
85°	120.0	120.0
87.5°	55.5	50.1
90°	42.4	42.4
92.5°	170.0	136.3
95°	592.5	490.3
97.5°	1419.7	1225.1
100°	2045.5	1813.7
102.5°	2661.1	2462.6
105°	3446.1	3339.3
107.5°	3960.1	3985.9
110°	4156.2	4267.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4173.7	4344.4
115°	4063.0	4299.7
117.5°	3828.4	4090.9
120°	3639.3	3894.3
122.5°	3455.1	3706.8
125°	3192.4	3424.2
127.5°	2956.1	3151.7
130°	2816.9	2997.6
132.5°	2690.5	2852.4
135°	2517.4	2656.9
137.5°	2378.6	2492.7
140°	2283.3	2390.0
142.5°	2204.3	2296.2
145°	2086.0	2155.5
147.5°	1995.1	2052.7
150°	1938.0	1984.6
152.5°	1889.0	1924.3
155°	1832.9	1856.2
157.5°	1788.4	1804.8
160°	1761.9	1771.3
162.5°	1744.4	1753.4
165°	1719.4	1728.8
167.5°	1701.5	1705.4
170°	1696.4	1696.4
172.5°	1683.2	1679.7
175°	1675.2	1675.2
177.5°	1668.0	1664.0
180°	1664.0	1664.0



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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	1.92	2.63	3.03	3.74	5.29	15.09	15.81	16.21	16.92	18.47
	3H	2.61	3.25	3.73	4.37	5.93	16.92	17.56	18.05	18.69	20.25
	4H	2.90	3.51	4.03	4.63	6.20	17.56	18.17	18.69	19.29	20.86
	6H	3.14	3.70	4.29	4.83	6.41	17.98	18.54	19.12	19.67	21.25
	8H	3.21	3.74	4.35	4.88	6.45	18.10	18.63	19.24	19.77	21.35
	12H	3.22	3.73	4.37	4.86	6.46	18.16	18.67	19.31	19.80	21.40
4H	2H	9.11	9.72	10.25	10.84	12.41	15.35	15.96	16.49	17.08	18.65
	3H	10.67	11.18	11.81	12.32	13.90	17.38	17.89	18.53	19.04	20.62
	4H	10.75	11.22	11.90	12.36	13.96	18.14	18.61	19.29	19.75	21.35
	6H	10.76	11.16	11.91	12.32	13.91	18.67	19.07	19.83	20.24	21.82
	8H	10.73	11.10	11.88	12.26	13.86	18.83	19.21	19.99	20.36	21.96
	12H	10.68	11.02	11.85	12.18	13.79	18.92	19.26	20.09	20.42	22.03
8H	4H	12.19	12.56	13.34	13.71	15.32	18.19	18.56	19.34	19.72	21.32
	6H	12.42	12.73	13.60	13.93	15.53	18.81	19.12	19.99	20.32	21.92
	8H	12.44	12.71	13.62	13.88	15.50	19.03	19.30	20.21	20.47	22.10
	12H	12.40	12.64	13.58	13.81	15.46	19.17	19.40	20.35	20.57	22.23
12H	4H	12.32	12.66	13.49	13.83	15.44	18.13	18.48	19.31	19.64	21.25
	6H	12.68	12.95	13.86	14.12	15.74	18.79	19.06	19.97	20.24	21.86
	8H	12.74	12.98	13.93	14.15	15.80	19.01	19.25	20.20	20.42	22.08