

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: P938094

Luminaire Tested: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

**Test Information**

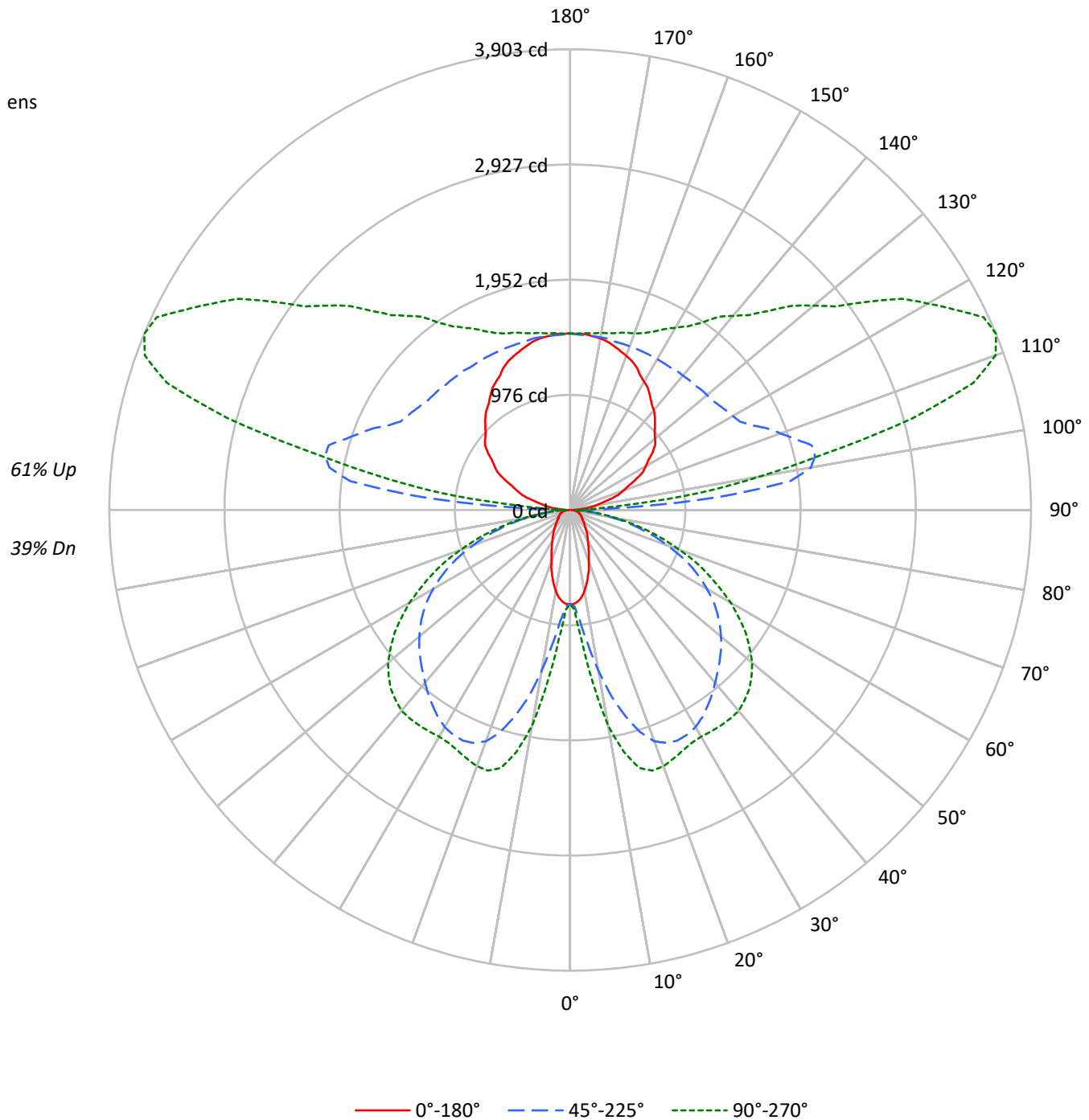
Test Method: LM-79-2019  
Report Number: P938094  
REPORT IS A COMBINATION OF REPORTS P933615 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-8-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15858.7 lumens  
Efficiency: N/A  
Efficacy: 123.1 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): 128.8  
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	0
RCR																		
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8

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

	0°	45°	90°
0°	3695	3695	3695
5°	3610	4270	4967
10°	3274	6225	8234
15°	2783	8133	9943
20°	2266	9425	10133
25°	1890	9863	9927
30°	1594	9925	9908
35°	1409	9760	10164
40°	1228	9546	10429
45°	1112	9390	10470
50°	1020	9248	10296
55°	977	9041	9840
60°	1000	8645	9120
65°	1040	8041	8129
70°	1108	7012	6868
75°	1228	5717	5359
80°	1342	3964	3611
85°	1192	2104	1849

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10470 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.0	0.6
10°-20°	456.6	2.9
20°-30°	798.6	5.0
30°-40°	1028.1	6.5
40°-50°	1148.3	7.2
50°-60°	1099.8	6.9
60°-70°	871.6	5.5
70°-80°	512.5	3.2
80°-90°	148.1	0.9
90°-100°	728.8	4.6
100°-110°	1916.0	12.1
110°-120°	1986.7	12.5
120°-130°	1593.6	10.0
130°-140°	1250.4	7.9
140°-150°	959.7	6.1
150°-160°	691.2	4.4
160°-170°	422.9	2.7
170°-180°	142.9	0.9
0°-30°	1358.2	8.6
0°-40°	2386.3	15.0
0°-60°	4634.4	29.2
0°-90°	6166.6	38.9
90°-120°	4631.5	29.2
90°-150°	8435.1	53.2
90°-180°	9692.0	61.1
0°-180°	15858.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	776	832	937	1060	1099	72
15°	581	1073	1808	2192	2261	162
25°	371	1216	2154	2248	2251	171
35°	251	1163	2028	2143	2228	157
45°	172	927	1793	2054	2146	133
55°	123	589	1521	1767	1816	112
65°	97	312	1129	1270	1288	96
75°	72	192	620	681	684	75
85°	26	59	154	169	172	27
90°	10	28	76	38	38	10
95°	96	377	1255	647	440	107
105°	345	523	2118	3216	3000	366
115°	613	744	1697	3384	3863	606
125°	853	956	1543	2608	3076	757
135°	1016	1119	1495	2105	2387	786
145°	1179	1254	1476	1796	1936	739
155°	1333	1370	1476	1621	1668	612
165°	1438	1457	1476	1534	1553	406
175°	1495	1495	1486	1505	1505	142
180°	1495	1495	1495	1495	1495	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	796.4	796.4	796.4	796.4	796.4	796.4	796.4	796.4	796.4	796.4	796.4
2.5°	796.4	796.4	801.6	804.1	809.2	811.7	816.9	822.0	837.4	839.9	845.1
5°	775.9	786.1	819.5	832.3	868.1	916.8	937.2	970.6	1039.6	1060.2	1073.0
7.5°	745.2	768.2	850.2	870.6	960.3	1088.3	1142.1	1213.8	1323.9	1377.7	1421.2
10°	696.5	745.2	891.2	939.8	1085.8	1280.3	1380.2	1480.1	1646.5	1720.8	1748.9
12.5°	642.7	722.1	934.7	1001.3	1211.2	1495.5	1615.8	1726.0	1915.4	2015.3	2030.6
15°	581.3	688.9	975.7	1073.0	1344.4	1674.7	1807.9	1943.6	2120.3	2192.0	2209.9
17.5°	527.5	663.3	1014.1	1116.5	1446.8	1836.1	1971.8	2084.4	2227.8	2276.5	2289.4
20°	461.0	622.3	1039.6	1172.8	1554.4	1953.9	2084.4	2171.5	2268.8	2299.5	2304.7
22.5°	412.3	578.7	1055.0	1193.3	1626.1	2025.6	2135.7	2204.8	2271.4	2281.6	2284.2
25°	371.3	530.0	1052.4	1216.4	1687.5	2069.1	2153.6	2204.8	2243.2	2248.4	2248.4
27.5°	332.9	476.3	1042.3	1221.5	1733.6	2079.4	2145.9	2181.8	2199.7	2209.9	2209.9
30°	299.6	425.1	1016.6	1211.2	1754.1	2069.1	2122.9	2140.8	2158.7	2174.0	2181.8
32.5°	274.0	376.5	978.2	1190.7	1756.7	2043.5	2081.9	2092.2	2117.7	2153.6	2166.4
35°	251.0	327.8	934.7	1162.6	1741.3	2002.5	2028.1	2038.4	2089.6	2143.3	2161.3
37.5°	227.9	292.0	878.3	1114.0	1718.2	1953.9	1971.8	1989.7	2069.1	2133.1	2153.6
40°	204.8	261.2	811.7	1060.2	1682.4	1895.0	1910.3	1938.5	2043.5	2117.7	2138.2
42.5°	186.9	235.6	740.0	1003.8	1636.4	1828.4	1851.5	1892.4	2012.7	2092.2	2115.2
45°	171.6	210.0	663.3	926.9	1577.4	1759.2	1792.6	1848.9	1976.9	2053.7	2074.2
47.5°	156.2	192.1	583.8	847.6	1513.4	1690.1	1733.6	1797.7	1928.2	2002.5	2020.5
50°	143.4	174.1	504.5	763.1	1444.3	1615.8	1667.1	1733.6	1866.8	1936.0	1958.9
52.5°	133.1	158.7	430.2	678.6	1364.8	1539.0	1597.9	1667.1	1792.6	1859.1	1874.4
55°	122.9	145.9	366.2	589.0	1283.0	1457.1	1521.0	1587.7	1710.6	1766.9	1777.1
57.5°	117.8	135.8	312.4	504.5	1195.8	1364.8	1436.5	1498.1	1613.3	1656.8	1667.1
60°	110.1	128.0	271.4	432.8	1101.2	1277.8	1339.3	1400.7	1498.1	1533.9	1541.6
62.5°	102.4	122.9	240.7	363.7	1003.8	1175.4	1236.8	1293.2	1375.1	1400.7	1411.0
65°	97.3	117.8	217.6	312.4	904.0	1067.8	1129.3	1177.9	1244.5	1270.2	1275.3
67.5°	92.2	112.7	199.7	268.9	804.1	960.3	1006.4	1052.4	1103.7	1129.3	1131.9
70°	84.5	107.6	184.4	238.2	701.7	837.4	875.8	924.4	965.4	978.2	985.9
72.5°	79.4	99.9	174.1	215.1	596.6	719.6	755.4	783.6	819.5	832.3	832.3
75°	71.7	89.6	163.9	192.1	489.2	589.0	619.7	647.9	676.1	681.2	673.5
77.5°	64.1	79.4	140.8	161.3	381.6	466.1	491.7	507.0	530.0	535.2	537.8
80°	53.8	69.2	110.1	125.5	276.6	343.1	361.0	373.8	394.4	394.4	399.5
82.5°	41.0	53.8	79.4	89.6	186.9	235.6	251.0	258.6	271.4	271.4	271.4
85°	25.6	33.3	51.3	58.9	112.7	143.4	153.7	156.2	166.5	169.0	169.0
87.5°	12.8	17.9	33.3	35.9	58.9	74.2	74.2	79.4	79.4	76.8	74.2
90°	10.1	18.1	26.1	28.1	44.2	65.6	76.3	67.7	50.8	38.1	38.1
92.5°	40.1	108.3	176.6	193.7	272.3	377.0	429.5	376.4	270.3	190.6	183.0
95°	96.3	221.2	346.1	377.3	670.0	1060.2	1255.2	1120.2	849.9	647.2	624.2
97.5°	166.6	276.7	386.9	414.4	902.4	1553.1	1878.4	1793.0	1622.2	1494.1	1450.4
100°	220.7	320.6	420.5	445.5	987.0	1709.0	2070.1	2076.3	2088.8	2098.2	2046.1
102.5°	266.9	360.1	453.3	476.7	1025.9	1758.2	2124.2	2233.1	2450.7	2613.9	2569.3
105°	345.2	424.1	503.0	522.8	1054.6	1763.7	2118.2	2362.1	2850.0	3215.9	3192.0
107.5°	425.5	499.0	572.6	591.0	1059.9	1685.2	1997.8	2338.1	3018.6	3529.0	3534.8
110°	479.7	546.1	612.6	629.2	1051.9	1615.6	1897.5	2277.9	3038.7	3609.2	3634.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	532.9	596.1	659.5	675.3	1052.2	1554.9	1806.1	2195.5	2974.1	3558.1	3596.4
115°	613.1	671.5	729.9	744.5	1061.9	1485.2	1696.8	2071.8	2821.9	3384.5	3437.7
117.5°	692.4	745.5	798.5	811.7	1081.7	1441.6	1621.5	1960.0	2636.9	3144.7	3203.7
120°	738.5	788.5	838.4	850.9	1097.7	1426.9	1591.4	1900.7	2519.2	2983.2	3040.4
122.5°	783.6	834.0	884.4	897.0	1120.7	1419.1	1568.3	1846.8	2403.9	2821.6	2878.1
125°	852.9	898.8	944.8	956.2	1151.9	1412.8	1543.2	1779.9	2253.0	2607.9	2659.9
127.5°	909.1	955.5	1001.8	1013.5	1183.1	1409.1	1522.2	1725.3	2131.6	2436.3	2480.2
130°	939.2	989.2	1039.1	1051.6	1205.7	1411.3	1514.2	1695.0	2056.7	2327.9	2368.5
132.5°	970.3	1020.3	1070.2	1082.7	1224.1	1412.8	1507.1	1669.0	1992.7	2235.6	2271.9
135°	1016.5	1061.9	1107.5	1118.8	1244.2	1411.4	1495.1	1630.6	1901.8	2105.2	2136.5
137.5°	1063.6	1108.6	1153.7	1164.9	1274.3	1420.2	1493.0	1607.7	1836.9	2008.8	2034.5
140°	1102.7	1144.2	1185.7	1196.0	1292.7	1421.6	1486.1	1585.1	1783.1	1931.6	1955.5
142.5°	1132.9	1171.2	1209.5	1219.1	1308.1	1426.8	1486.1	1573.0	1746.9	1877.3	1898.0
145°	1179.0	1212.4	1245.9	1254.3	1328.2	1426.8	1476.0	1547.1	1689.5	1796.1	1811.7
147.5°	1225.2	1257.8	1290.3	1298.5	1357.7	1436.5	1476.0	1532.0	1643.9	1727.9	1740.8
150°	1255.2	1284.7	1314.2	1321.5	1373.0	1441.7	1476.0	1523.3	1617.8	1688.8	1699.2
152.5°	1286.3	1308.6	1330.9	1336.5	1383.1	1445.0	1476.0	1516.4	1597.1	1657.7	1665.6
155°	1332.6	1349.0	1365.5	1369.7	1405.1	1452.3	1476.0	1508.2	1572.4	1620.6	1625.8
157.5°	1366.7	1382.7	1398.8	1402.7	1427.1	1459.7	1476.0	1501.0	1550.9	1588.4	1592.1
160°	1389.7	1402.2	1414.7	1417.8	1437.2	1463.1	1476.0	1497.4	1540.2	1572.3	1574.4
162.5°	1412.8	1422.1	1431.5	1433.8	1447.9	1466.6	1476.0	1494.0	1530.1	1557.3	1559.3
165°	1437.9	1446.4	1454.9	1457.0	1463.3	1471.7	1476.0	1489.0	1514.8	1534.2	1536.3
167.5°	1461.0	1464.9	1469.0	1470.0	1475.3	1482.5	1486.1	1494.5	1511.4	1524.1	1525.0
170°	1476.0	1480.1	1484.1	1485.1	1485.4	1485.9	1486.1	1494.5	1511.4	1524.1	1524.1
172.5°	1484.0	1484.9	1485.9	1486.1	1486.1	1486.1	1486.1	1492.7	1506.1	1516.2	1515.4
175°	1495.1	1495.1	1495.1	1495.1	1492.1	1488.1	1486.1	1490.3	1498.8	1505.1	1505.1
177.5°	1495.1	1495.1	1495.1	1495.1	1492.7	1489.6	1488.1	1491.4	1498.1	1503.1	1502.2
180°	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	796.4	796.4
2.5°	850.2	845.1
5°	1093.4	1098.6
7.5°	1472.4	1469.9
10°	1830.9	1854.0
12.5°	2092.2	2097.3
15°	2250.9	2261.2
17.5°	2312.3	2314.9
20°	2314.9	2309.8
22.5°	2286.7	2281.6
25°	2253.5	2250.9
27.5°	2222.7	2225.3
30°	2209.9	2217.7
32.5°	2209.9	2222.7
35°	2215.0	2227.8
37.5°	2212.5	2227.8
40°	2202.2	2220.2
42.5°	2174.0	2186.8
45°	2130.5	2145.9
47.5°	2074.2	2084.4
50°	2002.5	2012.7
52.5°	1912.9	1915.4
55°	1805.3	1815.6
57.5°	1690.1	1692.6
60°	1562.0	1569.8
62.5°	1426.4	1426.4
65°	1283.0	1288.1
67.5°	1134.4	1147.2
70°	983.3	985.9
72.5°	834.8	834.8
75°	681.2	683.7
77.5°	535.2	535.2
80°	396.9	399.5
82.5°	274.0	279.2
85°	171.6	171.6
87.5°	79.4	71.7
90°	38.1	38.1
92.5°	152.7	122.4
95°	532.4	440.5
97.5°	1275.6	1100.8
100°	1837.8	1629.6
102.5°	2390.9	2212.5
105°	3096.1	3000.2
107.5°	3558.0	3581.1
110°	3734.1	3834.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3749.8	3903.2
115°	3650.4	3863.1
117.5°	3439.6	3675.5
120°	3269.7	3498.9
122.5°	3104.3	3330.4
125°	2868.2	3076.5
127.5°	2655.9	2831.6
130°	2530.8	2693.1
132.5°	2417.4	2562.7
135°	2261.8	2387.1
137.5°	2137.0	2239.6
140°	2051.5	2147.3
142.5°	1980.4	2063.0
145°	1874.1	1936.5
147.5°	1792.6	1844.3
150°	1741.2	1783.1
152.5°	1697.2	1728.9
155°	1646.7	1667.6
157.5°	1606.8	1621.5
160°	1582.9	1591.4
162.5°	1567.4	1575.4
165°	1544.8	1553.3
167.5°	1528.6	1532.2
170°	1524.1	1524.1
172.5°	1512.2	1509.1
175°	1505.1	1505.1
177.5°	1498.7	1495.1
180°	1495.1	1495.1



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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	4.44	5.23	5.48	6.28	7.70	17.61	18.41	18.65	19.46	20.88
	3H	5.14	5.85	6.19	6.91	8.35	19.45	20.16	20.50	21.22	22.66
	4H	5.43	6.11	6.49	7.17	8.62	20.09	20.77	21.15	21.83	23.28
	6H	5.68	6.31	6.75	7.37	8.83	20.52	21.14	21.59	22.21	23.67
	8H	5.75	6.34	6.82	7.42	8.87	20.64	21.23	21.71	22.32	23.77
	12H	5.76	6.33	6.84	7.40	8.88	20.70	21.27	21.78	22.35	23.82
4H	2H	11.64	12.32	12.71	13.38	14.83	17.88	18.56	18.95	19.62	21.07
	3H	13.20	13.77	14.28	14.86	16.32	19.92	20.49	21.00	21.58	23.04
	4H	13.30	13.82	14.38	14.90	16.38	20.68	21.21	21.77	22.29	23.76
	6H	13.30	13.75	14.39	14.86	16.33	21.22	21.67	22.31	22.77	24.24
	8H	13.28	13.70	14.37	14.79	16.28	21.38	21.80	22.47	22.89	24.38
	12H	13.23	13.61	14.34	14.72	16.21	21.47	21.85	22.58	22.96	24.45
8H	4H	14.74	15.16	15.83	16.25	17.74	20.74	21.16	21.83	22.25	23.74
	6H	14.97	15.32	16.09	16.46	17.94	21.37	21.71	22.48	22.85	24.34
	8H	14.99	15.30	16.11	16.41	17.92	21.58	21.89	22.70	23.01	24.51
	12H	14.96	15.23	16.08	16.34	17.88	21.73	21.99	22.85	23.11	24.65
12H	4H	14.88	15.26	15.99	16.36	17.86	20.69	21.07	21.80	22.18	23.67
	6H	15.23	15.54	16.35	16.66	18.16	21.35	21.65	22.47	22.77	24.28
	8H	15.30	15.57	16.42	16.68	18.22	21.57	21.84	22.70	22.96	24.50