

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: P937669

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

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937669  
REPORT IS A COMBINATION OF REPORTS P933559 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-935-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

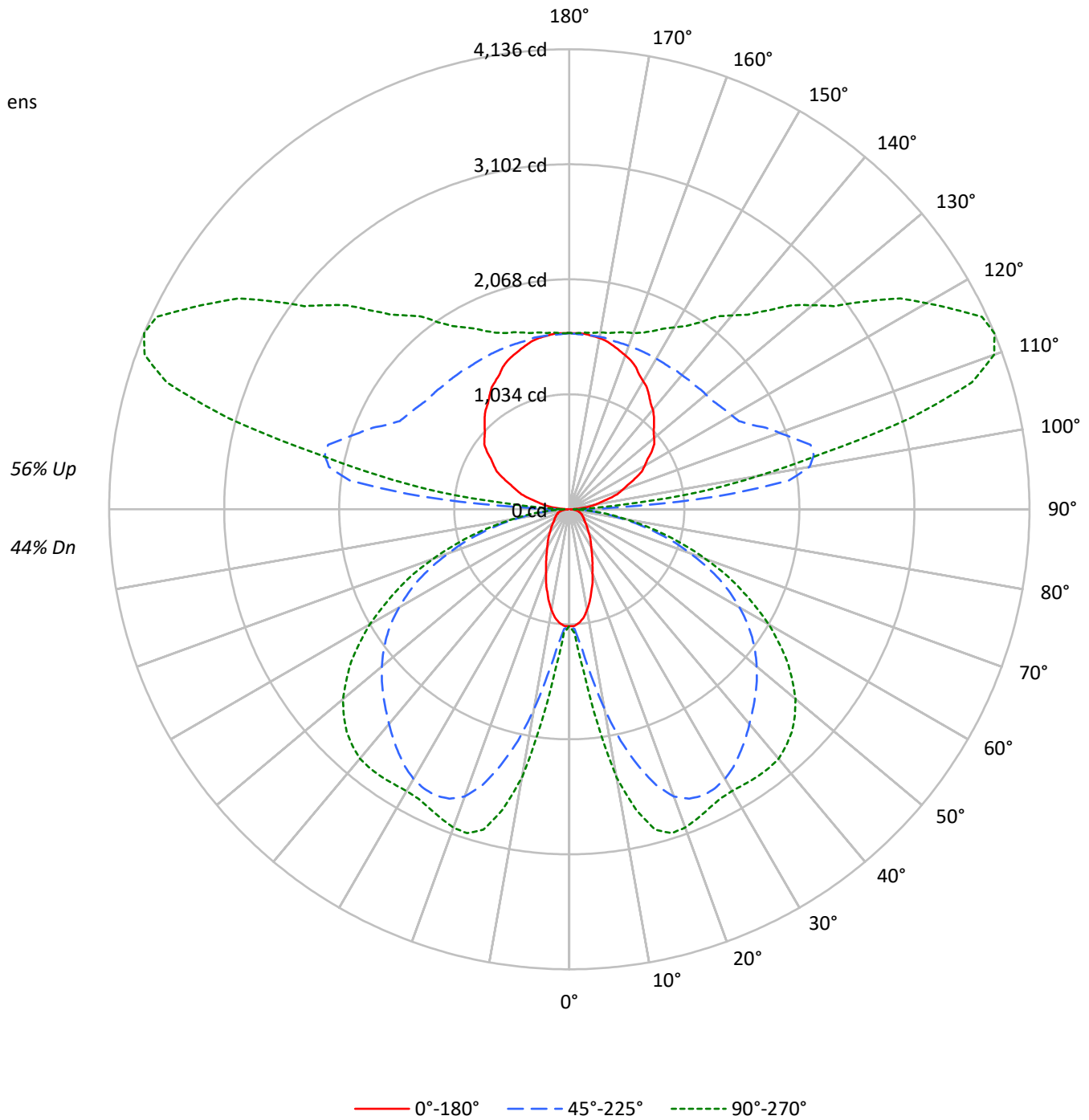
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18399.8 lumens  
Efficiency: N/A  
Efficacy: 105.7 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: General Diffuse

Input Watts (W): 174  
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44			44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36			36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30			30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24			24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20			20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17			17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15			15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13			13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11			11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10			10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9			9

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

	0°	45°	90°
0°	3249	3249	3249
5°	3175	3756	4366
10°	2881	5476	7239
15°	2449	7156	8741
20°	1995	8294	8908
25°	1664	8682	8727
30°	1404	8739	8711
35°	1242	8596	8936
40°	1083	8410	9169
45°	982	8274	9205
50°	901	8152	9052
55°	864	7973	8651
60°	885	7627	8017
65°	923	7098	7147
70°	985	6195	6038
75°	1096	5055	4712
80°	1206	3510	3175
85°	1092	1865	1625

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9205 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.9	0.7
10°-20°	602.1	3.3
20°-30°	1053.2	5.7
30°-40°	1355.8	7.4
40°-50°	1514.3	8.2
50°-60°	1450.4	7.9
60°-70°	1149.4	6.2
70°-80°	675.9	3.7
80°-90°	193.8	1.1
90°-100°	772.2	4.2
100°-110°	2030.1	11.0
110°-120°	2105.0	11.4
120°-130°	1688.5	9.2
130°-140°	1324.8	7.2
140°-150°	1016.9	5.5
150°-160°	732.3	4.0
160°-170°	448.1	2.4
170°-180°	151.4	0.8
0°-30°	1791.1	9.7
0°-40°	3146.9	17.1
0°-60°	6111.6	33.2
0°-90°	8130.7	44.2
90°-120°	4907.2	26.7
90°-150°	8937.3	48.6
90°-180°	10269.0	55.8
0°-180°	18399.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1050	1050	1050	1050	1050	
5°	1023	1098	1236	1398	1449	94
15°	766	1415	2384	2891	2982	213
25°	490	1604	2840	2965	2968	226
35°	331	1533	2675	2826	2938	207
45°	226	1222	2364	2708	2830	175
55°	162	777	2006	2330	2394	148
65°	128	412	1489	1675	1699	127
75°	95	253	817	898	902	99
85°	34	78	203	223	226	36
90°	11	30	81	40	40	11
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°	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3
2.5°	1050.3	1050.3	1057.0	1060.4	1067.1	1070.5	1077.3	1084.0	1104.3	1107.7	1114.4
5°	1023.3	1036.7	1080.7	1097.5	1144.8	1209.0	1236.0	1279.9	1371.0	1398.0	1414.9
7.5°	982.7	1013.1	1121.1	1148.2	1266.3	1435.2	1506.2	1600.7	1745.9	1816.8	1874.2
10°	918.5	982.7	1175.2	1239.3	1431.9	1688.5	1820.2	1951.9	2171.4	2269.3	2306.4
12.5°	847.7	952.3	1232.6	1320.4	1597.3	1972.1	2130.9	2276.1	2526.0	2657.7	2677.9
15°	766.5	908.4	1286.6	1414.9	1772.9	2208.6	2384.2	2563.2	2796.2	2890.7	2914.4
17.5°	695.7	874.7	1337.3	1472.3	1908.0	2421.3	2600.3	2748.9	2938.0	3002.1	3019.1
20°	607.8	820.6	1371.0	1546.6	2049.8	2576.6	2748.9	2863.7	2992.0	3032.5	3039.3
22.5°	543.7	763.2	1391.3	1573.6	2144.4	2671.2	2816.4	2907.6	2995.4	3008.9	3012.2
25°	489.6	699.1	1387.9	1604.1	2225.4	2728.6	2840.1	2907.6	2958.2	2965.0	2965.0
27.5°	439.0	628.1	1374.4	1610.8	2286.3	2742.1	2829.9	2877.2	2900.8	2914.4	2914.4
30°	395.1	560.6	1340.6	1597.3	2313.3	2728.6	2799.5	2823.2	2846.8	2867.1	2877.2
32.5°	361.3	496.4	1290.0	1570.3	2316.6	2694.9	2745.5	2759.0	2792.8	2840.1	2856.9
35°	330.9	432.2	1232.6	1533.2	2296.3	2640.8	2674.6	2688.1	2755.6	2826.5	2850.2
37.5°	300.6	385.0	1158.3	1469.0	2266.0	2576.6	2600.3	2623.9	2728.6	2813.0	2840.1
40°	270.2	344.5	1070.5	1398.0	2218.7	2499.0	2519.2	2556.3	2694.9	2792.8	2819.8
42.5°	246.5	310.7	976.0	1323.8	2157.9	2411.2	2441.6	2495.6	2654.3	2759.0	2789.4
45°	226.3	276.9	874.7	1222.4	2080.2	2320.0	2363.9	2438.2	2607.0	2708.3	2735.3
47.5°	206.0	253.3	770.0	1117.8	1995.8	2228.8	2286.3	2370.6	2542.9	2640.8	2664.5
50°	189.1	229.6	665.2	1006.4	1904.6	2130.9	2198.4	2286.3	2461.9	2553.0	2583.4
52.5°	175.6	209.3	567.3	894.9	1799.9	2029.5	2107.3	2198.4	2363.9	2451.7	2472.0
55°	162.1	192.5	482.9	776.7	1691.9	1921.5	2005.9	2093.7	2255.8	2330.1	2343.6
57.5°	155.3	179.0	412.0	665.2	1577.1	1799.9	1894.5	1975.5	2127.5	2184.9	2198.4
60°	145.2	168.9	357.9	570.7	1452.1	1685.1	1766.2	1847.2	1975.5	2022.8	2033.0
62.5°	135.0	162.1	317.5	479.5	1323.8	1550.0	1631.1	1705.4	1813.5	1847.2	1860.7
65°	128.3	155.3	287.0	412.0	1192.1	1408.2	1489.2	1553.5	1641.2	1674.9	1681.8
67.5°	121.6	148.6	263.4	354.6	1060.4	1266.3	1327.2	1387.9	1455.5	1489.2	1492.6
70°	111.4	141.9	243.2	314.0	925.3	1104.3	1155.0	1219.1	1273.1	1290.0	1300.2
72.5°	104.7	131.7	229.6	283.6	786.8	949.0	996.2	1033.4	1080.7	1097.5	1097.5
75°	94.6	118.2	216.2	253.3	645.0	776.7	817.2	854.4	891.5	898.3	888.1
77.5°	84.4	104.7	185.7	212.7	503.2	614.6	648.4	668.6	699.1	705.8	709.2
80°	70.9	91.2	145.2	165.5	364.7	452.5	476.2	493.1	520.1	520.1	526.8
82.5°	54.0	70.9	104.7	118.2	246.5	310.7	330.9	341.1	357.9	357.9	357.9
85°	33.7	43.9	67.6	77.7	148.6	189.1	202.6	206.0	219.5	222.9	222.9
87.5°	16.9	23.6	43.9	47.3	77.7	97.9	97.9	104.7	104.7	101.3	97.9
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°	1050.3	1050.3
2.5°	1121.1	1114.4
5°	1442.0	1448.7
7.5°	1941.8	1938.4
10°	2414.6	2444.9
12.5°	2759.0	2765.8
15°	2968.4	2981.9
17.5°	3049.4	3052.8
20°	3052.8	3046.1
22.5°	3015.7	3008.9
25°	2971.8	2968.4
27.5°	2931.2	2934.6
30°	2914.4	2924.5
32.5°	2914.4	2931.2
35°	2921.1	2938.0
37.5°	2917.7	2938.0
40°	2904.2	2927.8
42.5°	2867.1	2883.9
45°	2809.6	2829.9
47.5°	2735.3	2748.9
50°	2640.8	2654.3
52.5°	2522.6	2526.0
55°	2380.7	2394.3
57.5°	2228.8	2232.2
60°	2060.0	2070.1
62.5°	1881.0	1881.0
65°	1691.9	1698.6
67.5°	1496.0	1512.9
70°	1296.7	1300.2
72.5°	1100.9	1100.9
75°	898.3	901.7
77.5°	705.8	705.8
80°	523.5	526.8
82.5°	361.3	368.1
85°	226.3	226.3
87.5°	104.7	94.6
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	4.55	5.39	5.55	6.41	7.76	17.74	18.58	18.74	19.60	20.95
	3H	5.25	6.01	6.26	7.03	8.40	19.58	20.34	20.59	21.37	22.73
	4H	5.55	6.27	6.57	7.30	8.67	20.23	20.95	21.25	21.98	23.35
	6H	5.80	6.46	6.83	7.49	8.88	20.67	21.33	21.70	22.36	23.75
	8H	5.87	6.50	6.90	7.55	8.93	20.79	21.42	21.83	22.47	23.85
	12H	5.88	6.48	6.93	7.53	8.94	20.86	21.46	21.90	22.50	23.91
4H	2H	11.77	12.49	12.80	13.52	14.89	18.01	18.73	19.04	19.76	21.13
	3H	13.34	13.94	14.37	14.99	16.38	20.06	20.66	21.10	21.72	23.11
	4H	13.43	13.98	14.47	15.03	16.44	20.83	21.38	21.87	22.43	23.84
	6H	13.44	13.91	14.49	14.98	16.39	21.37	21.85	22.43	22.92	24.33
	8H	13.42	13.86	14.47	14.92	16.35	21.54	21.98	22.59	23.04	24.47
	12H	13.37	13.77	14.44	14.85	16.28	21.63	22.04	22.71	23.11	24.54
8H	4H	14.88	15.32	15.93	16.38	17.81	20.89	21.33	21.94	22.40	23.82
	6H	15.12	15.49	16.20	16.59	18.01	21.52	21.89	22.60	22.99	24.42
	8H	15.13	15.46	16.22	16.55	17.99	21.75	22.07	22.83	23.16	24.60
	12H	15.10	15.39	16.19	16.47	17.95	21.89	22.18	22.98	23.26	24.74
12H	4H	15.02	15.42	16.09	16.50	17.93	20.84	21.24	21.91	22.32	23.75
	6H	15.38	15.70	16.46	16.79	18.23	21.51	21.83	22.59	22.92	24.36
	8H	15.45	15.73	16.54	16.81	18.29	21.74	22.02	22.83	23.11	24.59