

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: P938021

Luminaire Tested: SQ4-FB-125U-100D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

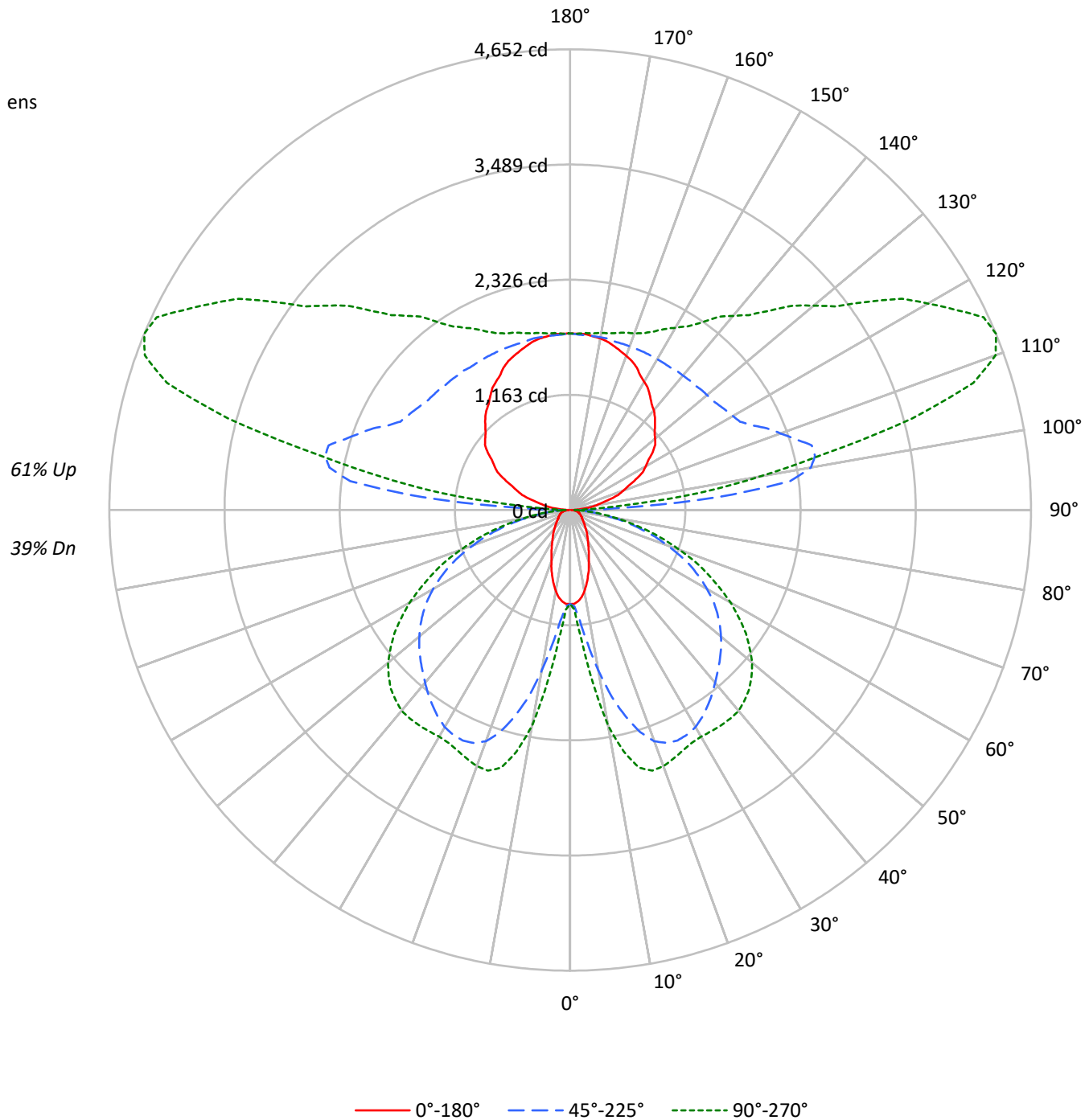
Test Method: LM-79-2019  
Report Number: P938021  
REPORT IS A COMBINATION OF REPORTS P933591 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-927-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18902.0 lumens  
Efficiency: N/A  
Efficacy: 97.8 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): 193.2  
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				
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	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°	2936	2936	2936
5°	2869	3394	3946
10°	2603	4949	6542
15°	2214	6467	7900
20°	1803	7496	8051
25°	1504	7846	7887
30°	1269	7898	7872
35°	1123	7769	8076
40°	979	7600	8286
45°	887	7478	8319
50°	814	7368	8181
55°	781	7206	7819
60°	800	6893	7246
65°	834	6415	6459
70°	890	5598	5457
75°	991	4569	4258
80°	1090	3173	2869
85°	988	1686	1469

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8319 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.8	0.6
10°-20°	544.2	2.9
20°-30°	951.8	5.0
30°-40°	1225.3	6.5
40°-50°	1368.6	7.2
50°-60°	1310.8	6.9
60°-70°	1038.8	5.5
70°-80°	610.8	3.2
80°-90°	176.5	0.9
90°-100°	868.7	4.6
100°-110°	2283.8	12.1
110°-120°	2368.0	12.5
120°-130°	1899.5	10.0
130°-140°	1490.4	7.9
140°-150°	1143.9	6.1
150°-160°	823.8	4.4
160°-170°	504.1	2.7
170°-180°	170.3	0.9
0°-30°	1618.8	8.6
0°-40°	2844.0	15.0
0°-60°	5523.4	29.2
0°-90°	7349.5	38.9
90°-120°	5520.5	29.2
90°-150°	10054.3	53.2
90°-180°	11552.0	61.1
0°-180°	18902.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	949	949	949	949	949	
5°	925	992	1117	1264	1309	85
15°	693	1279	2155	2612	2695	193
25°	442	1450	2567	2680	2683	204
35°	299	1386	2417	2554	2655	187
45°	204	1105	2136	2448	2558	158
55°	146	702	1813	2106	2164	133
65°	116	372	1346	1514	1535	115
75°	86	229	739	812	815	89
85°	30	70	183	201	204	32
90°	12	34	91	45	45	12
95°	115	450	1496	772	525	127
105°	411	623	2525	3833	3576	436
115°	731	887	2022	4034	4605	722
125°	1017	1140	1840	3108	3667	903
135°	1212	1334	1782	2509	2845	937
145°	1405	1495	1759	2141	2308	880
155°	1588	1633	1759	1932	1988	730
165°	1714	1737	1759	1829	1852	484
175°	1782	1782	1771	1794	1794	169
180°	1782	1782	1782	1782	1782	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	949.2	949.2	949.2	949.2	949.2	949.2	949.2	949.2	949.2	949.2	949.2
2.5°	949.2	949.2	955.3	958.3	964.4	967.5	973.6	979.7	998.0	1001.1	1007.2
5°	924.8	936.9	976.7	991.9	1034.6	1092.6	1117.0	1156.7	1239.1	1263.5	1278.7
7.5°	888.1	915.6	1013.2	1037.7	1144.5	1297.1	1361.2	1446.6	1577.9	1641.9	1693.8
10°	830.1	888.1	1062.1	1120.0	1294.1	1526.0	1645.0	1764.1	1962.4	2050.9	2084.5
12.5°	766.1	860.6	1114.0	1193.3	1443.6	1782.3	1925.8	2057.1	2282.9	2401.9	2420.2
15°	692.8	821.0	1162.8	1278.7	1602.3	1996.0	2154.7	2316.5	2527.1	2612.5	2633.9
17.5°	628.7	790.5	1208.6	1330.6	1724.3	2188.3	2350.0	2484.3	2655.2	2713.2	2728.5
20°	549.3	741.7	1239.1	1397.8	1852.5	2328.6	2484.3	2588.0	2704.0	2740.7	2746.7
22.5°	491.3	689.8	1257.4	1422.2	1938.0	2414.1	2545.3	2627.8	2707.1	2719.3	2722.3
25°	442.5	631.8	1254.3	1449.7	2011.2	2466.0	2566.7	2627.8	2673.5	2679.6	2679.6
27.5°	396.8	567.6	1242.2	1455.8	2066.2	2478.2	2557.6	2600.3	2621.6	2633.9	2633.9
30°	357.0	506.7	1211.6	1443.6	2090.6	2466.0	2530.1	2551.5	2572.8	2591.1	2600.3
32.5°	326.6	448.6	1165.9	1419.2	2093.6	2435.5	2481.2	2493.5	2524.0	2566.7	2582.0
35°	299.1	390.6	1114.0	1385.6	2075.3	2386.6	2417.2	2429.4	2490.4	2554.5	2575.9
37.5°	271.7	348.0	1046.8	1327.6	2047.9	2328.6	2350.0	2371.4	2466.0	2542.3	2566.7
40°	244.2	311.3	967.5	1263.5	2005.2	2258.5	2276.7	2310.3	2435.5	2524.0	2548.4
42.5°	222.8	280.8	882.0	1196.3	1950.2	2179.1	2206.6	2255.4	2398.9	2493.5	2520.9
45°	204.5	250.2	790.5	1104.8	1880.0	2096.7	2136.4	2203.5	2356.1	2447.7	2472.1
47.5°	186.2	228.9	695.8	1010.2	1803.7	2014.3	2066.2	2142.4	2298.1	2386.6	2408.0
50°	170.9	207.5	601.2	909.5	1721.3	1925.8	1986.8	2066.2	2224.9	2307.3	2334.8
52.5°	158.7	189.2	512.7	808.8	1626.7	1834.2	1904.4	1986.8	2136.4	2215.8	2234.1
55°	146.5	173.9	436.4	701.9	1529.1	1736.6	1812.9	1892.2	2038.7	2105.9	2118.0
57.5°	140.4	161.8	372.4	601.2	1425.3	1626.7	1712.2	1785.4	1922.8	1974.6	1986.8
60°	131.2	152.6	323.5	515.7	1312.3	1522.9	1596.2	1669.4	1785.4	1828.1	1837.3
62.5°	122.0	146.5	286.9	433.4	1196.3	1400.9	1474.1	1541.2	1638.9	1669.4	1681.6
65°	116.0	140.4	259.4	372.4	1077.4	1272.7	1345.9	1403.9	1483.3	1513.7	1519.9
67.5°	109.9	134.3	238.1	320.5	958.3	1144.5	1199.4	1254.3	1315.4	1345.9	1349.0
70°	100.7	128.2	219.8	283.8	836.2	998.0	1043.8	1101.8	1150.6	1165.9	1175.0
72.5°	94.6	119.0	207.5	256.3	711.1	857.6	900.4	933.9	976.7	991.9	991.9
75°	85.5	106.8	195.3	228.9	582.9	701.9	738.6	772.2	805.7	811.8	802.6
77.5°	76.3	94.6	167.9	192.3	454.8	555.5	586.0	604.3	631.8	637.9	640.9
80°	64.1	82.4	131.2	149.5	329.6	408.9	430.4	445.6	470.0	470.0	476.1
82.5°	48.8	64.1	94.6	106.8	222.8	280.8	299.1	308.2	323.5	323.5	323.5
85°	30.5	39.7	61.1	70.2	134.3	170.9	183.1	186.2	198.4	201.4	201.4
87.5°	15.2	21.3	39.7	42.7	70.2	88.5	88.5	94.6	94.6	91.6	88.5
90°	11.9	21.5	31.1	33.5	52.6	78.1	90.9	80.8	60.6	45.4	45.4
92.5°	47.8	129.1	210.5	230.8	324.6	449.4	511.9	448.6	322.1	227.2	218.2
95°	114.8	263.6	412.5	449.7	798.5	1263.6	1496.2	1335.1	1013.0	771.5	744.1
97.5°	198.5	329.8	461.2	494.0	1075.6	1851.2	2238.9	2137.1	1933.5	1780.9	1728.7
100°	263.1	382.2	501.3	531.1	1176.5	2037.1	2467.4	2474.9	2489.7	2500.9	2438.8
102.5°	318.2	429.3	540.3	568.1	1222.8	2095.6	2532.0	2661.7	2921.1	3115.7	3062.5
105°	411.4	505.5	599.6	623.2	1257.0	2102.2	2524.8	2815.5	3397.1	3833.2	3804.6
107.5°	507.1	594.8	682.5	704.5	1263.4	2008.7	2381.3	2786.9	3598.0	4206.4	4213.3
110°	571.7	650.9	730.1	749.9	1253.8	1925.7	2261.6	2715.1	3621.9	4302.1	4331.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	635.1	710.6	786.0	804.9	1254.2	1853.3	2152.8	2616.9	3545.0	4241.1	4286.8
115°	730.7	800.3	870.0	887.4	1265.8	1770.2	2022.5	2469.5	3363.6	4034.2	4097.6
117.5°	825.3	888.5	951.8	967.6	1289.3	1718.3	1932.8	2336.3	3143.1	3748.3	3818.6
120°	880.3	939.8	999.4	1014.2	1308.5	1700.8	1896.9	2265.6	3002.8	3555.8	3624.1
122.5°	934.1	994.1	1054.2	1069.2	1336.0	1691.6	1869.4	2201.4	2865.2	3363.2	3430.6
125°	1016.6	1071.4	1126.1	1139.8	1373.1	1684.0	1839.5	2121.4	2685.5	3108.4	3170.5
127.5°	1083.6	1138.9	1194.2	1208.0	1410.1	1679.6	1814.4	2056.4	2540.7	2903.9	2956.3
130°	1119.5	1179.0	1238.5	1253.4	1437.2	1682.3	1804.8	2020.3	2451.4	2774.8	2823.1
132.5°	1156.5	1216.1	1275.7	1290.5	1459.2	1684.0	1796.4	1989.4	2375.3	2664.7	2708.1
135°	1211.6	1265.8	1320.0	1333.6	1483.1	1682.4	1782.1	1943.7	2266.9	2509.3	2546.6
137.5°	1267.8	1321.5	1375.1	1388.5	1518.9	1692.8	1779.7	1916.3	2189.5	2394.4	2425.0
140°	1314.4	1363.8	1413.3	1425.7	1540.8	1694.5	1771.3	1889.3	2125.3	2302.3	2330.9
142.5°	1350.3	1396.0	1441.7	1453.1	1559.2	1700.6	1771.3	1875.0	2082.3	2237.8	2262.3
145°	1405.3	1445.2	1485.1	1495.0	1583.1	1700.6	1759.4	1844.2	2013.7	2140.8	2159.5
147.5°	1460.3	1499.1	1537.9	1547.6	1618.2	1712.3	1759.4	1826.1	1959.5	2059.5	2074.9
150°	1496.2	1531.3	1566.4	1575.2	1636.6	1718.4	1759.4	1815.7	1928.4	2012.9	2025.3
152.5°	1533.3	1559.9	1586.5	1593.1	1648.6	1722.4	1759.4	1807.5	1903.7	1975.8	1985.3
155°	1588.3	1608.0	1627.6	1632.6	1674.8	1731.2	1759.4	1797.6	1874.2	1931.5	1937.8
157.5°	1629.0	1648.1	1667.3	1672.1	1701.2	1740.0	1759.4	1789.1	1848.6	1893.3	1897.7
160°	1656.5	1671.4	1686.3	1690.0	1713.1	1744.0	1759.4	1784.9	1835.9	1874.2	1876.7
162.5°	1684.0	1695.2	1706.3	1709.1	1725.9	1748.2	1759.4	1780.9	1824.0	1856.2	1858.6
165°	1713.9	1724.0	1734.0	1736.6	1744.2	1754.3	1759.4	1774.8	1805.6	1828.7	1831.2
167.5°	1741.4	1746.2	1751.0	1752.1	1758.5	1767.1	1771.3	1781.4	1801.6	1816.7	1817.8
170°	1759.4	1764.1	1768.9	1770.1	1770.5	1771.0	1771.3	1781.4	1801.6	1816.7	1816.7
172.5°	1768.9	1770.0	1771.1	1771.3	1771.3	1771.3	1771.3	1779.3	1795.3	1807.2	1806.3
175°	1782.1	1782.1	1782.1	1782.1	1778.5	1773.7	1771.3	1776.4	1786.5	1794.0	1794.0
177.5°	1782.1	1782.1	1782.1	1782.1	1779.3	1775.5	1773.7	1777.7	1785.6	1791.6	1790.6
180°	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	949.2	949.2
2.5°	1013.2	1007.2
5°	1303.2	1309.3
7.5°	1754.9	1751.8
10°	2182.2	2209.6
12.5°	2493.5	2499.6
15°	2682.7	2694.9
17.5°	2755.9	2759.0
20°	2759.0	2752.9
22.5°	2725.4	2719.3
25°	2685.8	2682.7
27.5°	2649.1	2652.2
30°	2633.9	2643.0
32.5°	2633.9	2649.1
35°	2639.9	2655.2
37.5°	2636.9	2655.2
40°	2624.7	2646.0
42.5°	2591.1	2606.4
45°	2539.2	2557.6
47.5°	2472.1	2484.3
50°	2386.6	2398.9
52.5°	2279.8	2282.9
55°	2151.6	2163.9
57.5°	2014.3	2017.3
60°	1861.7	1870.9
62.5°	1699.9	1699.9
65°	1529.1	1535.1
67.5°	1352.0	1367.3
70°	1171.9	1175.0
72.5°	994.9	994.9
75°	811.8	814.9
77.5°	637.9	637.9
80°	473.1	476.1
82.5°	326.6	332.6
85°	204.5	204.5
87.5°	94.6	85.5
90°	45.4	45.4
92.5°	182.0	145.9
95°	634.6	525.1
97.5°	1520.4	1312.0
100°	2190.6	1942.3
102.5°	2849.8	2637.2
105°	3690.4	3576.1
107.5°	4240.9	4268.6
110°	4450.9	4570.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4469.6	4652.5
115°	4351.1	4604.7
117.5°	4099.8	4381.0
120°	3897.3	4170.5
122.5°	3700.1	3969.6
125°	3418.7	3667.0
127.5°	3165.7	3375.1
130°	3016.6	3210.1
132.5°	2881.3	3054.6
135°	2695.9	2845.3
137.5°	2547.2	2669.5
140°	2445.2	2559.5
142.5°	2360.7	2459.0
145°	2233.8	2308.3
147.5°	2136.6	2198.3
150°	2075.4	2125.4
152.5°	2023.0	2060.8
155°	1962.8	1987.8
157.5°	1915.2	1932.8
160°	1886.8	1896.9
162.5°	1868.2	1877.7
165°	1841.3	1851.5
167.5°	1822.1	1826.3
170°	1816.7	1816.7
172.5°	1802.5	1798.8
175°	1794.0	1794.0
177.5°	1786.3	1782.1
180°	1782.1	1782.1



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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	3.64	4.44	4.68	5.49	6.91	16.83	17.63	17.87	18.68	20.10
	3H	4.34	5.06	5.39	6.12	7.56	18.67	19.39	19.72	20.45	21.89
	4H	4.64	5.32	5.70	6.38	7.82	19.32	20.00	20.38	21.06	22.50
	6H	4.88	5.51	5.96	6.58	8.03	19.75	20.38	20.82	21.44	22.90
	8H	4.95	5.55	6.03	6.63	8.08	19.87	20.47	20.95	21.55	23.00
	12H	4.97	5.53	6.05	6.61	8.08	19.94	20.51	21.02	21.58	23.06
4H	2H	10.86	11.54	11.93	12.60	14.04	17.10	17.78	18.17	18.84	20.28
	3H	12.42	12.99	13.49	14.07	15.53	19.14	19.71	20.22	20.80	22.26
	4H	12.51	13.03	13.59	14.11	15.59	19.91	20.43	20.99	21.51	22.99
	6H	12.52	12.97	13.61	14.07	15.54	20.45	20.90	21.54	22.00	23.47
	8H	12.49	12.91	13.58	14.01	15.49	20.61	21.03	21.71	22.13	23.62
	12H	12.44	12.82	13.55	13.93	15.43	20.71	21.09	21.82	22.20	23.69
8H	4H	13.95	14.37	15.04	15.47	16.96	19.97	20.39	21.06	21.48	22.97
	6H	14.19	14.54	15.31	15.68	17.16	20.60	20.94	21.71	22.08	23.57
	8H	14.21	14.51	15.33	15.63	17.14	20.82	21.12	21.94	22.24	23.75
	12H	14.17	14.44	15.30	15.56	17.10	20.96	21.23	22.09	22.35	23.89
12H	4H	14.09	14.47	15.20	15.58	17.08	19.92	20.30	21.02	21.40	22.90
	6H	14.45	14.76	15.57	15.87	17.38	20.58	20.88	21.70	22.00	23.51
	8H	14.52	14.78	15.64	15.90	17.44	20.81	21.08	21.93	22.19	23.73