

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: P938369

Luminaire Tested: SQ4-FB-150U-075D-935-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938369  
REPORT IS A COMBINATION OF REPORTS P933622 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-075D-935-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

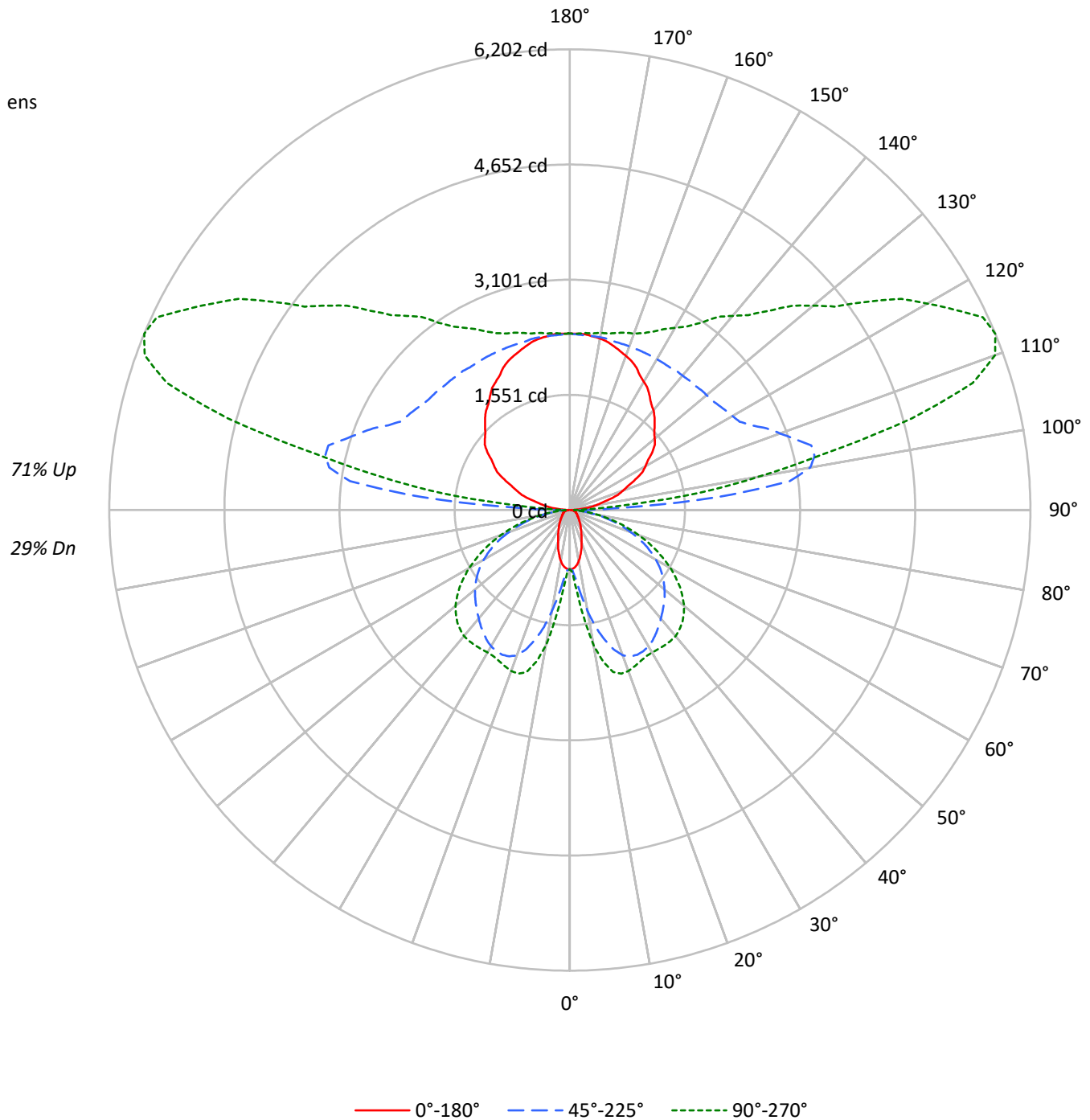
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21557.2 lumens  
Efficiency: N/A  
Efficacy: 113.0 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): 190.8  
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	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	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	27	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	21	19	17	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	13	10	9	6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	12	9	8	6

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

	0°	45°	90°
0°	2459	2459	2459
5°	2403	2843	3305
10°	2180	4145	5479
15°	1854	5416	6616
20°	1510	6278	6743
25°	1260	6571	6606
30°	1063	6615	6593
35°	940	6506	6764
40°	820	6366	6940
45°	743	6263	6967
50°	682	6171	6852
55°	654	6035	6548
60°	670	5773	6069
65°	698	5373	5410
70°	745	4689	4570
75°	830	3827	3567
80°	913	2657	2403
85°	830	1412	1230

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6967 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.8	0.5
10°-20°	455.7	2.1
20°-30°	797.2	3.7
30°-40°	1026.2	4.8
40°-50°	1146.2	5.3
50°-60°	1097.8	5.1
60°-70°	870.0	4.0
70°-80°	511.6	2.4
80°-90°	151.2	0.7
90°-100°	1157.9	5.4
100°-110°	3044.1	14.1
110°-120°	3156.4	14.6
120°-130°	2531.8	11.7
130°-140°	1986.6	9.2
140°-150°	1524.8	7.1
150°-160°	1098.1	5.1
160°-170°	671.9	3.1
170°-180°	227.0	1.1
0°-30°	1355.7	6.3
0°-40°	2381.9	11.0
0°-60°	4626.0	21.5
0°-90°	6158.8	28.6
90°-120°	7358.3	34.1
90°-150°	13401.5	62.2
90°-180°	15398.0	71.4
0°-180°	21557.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	774	831	936	1058	1097	71
15°	580	1071	1805	2188	2257	161
25°	371	1214	2150	2244	2247	171
35°	250	1160	2024	2140	2224	156
45°	171	925	1789	2050	2142	132
55°	123	588	1518	1764	1812	112
65°	97	312	1127	1268	1286	96
75°	72	192	619	680	682	75
85°	26	59	153	169	171	27
90°	16	45	121	61	61	15
95°	153	599	1994	1028	700	170
105°	548	831	3365	5109	4767	581
115°	974	1183	2696	5377	6138	962
125°	1355	1519	2452	4143	4888	1203
135°	1615	1778	2375	3345	3793	1249
145°	1873	1993	2345	2854	3077	1174
155°	2117	2176	2345	2575	2650	973
165°	2284	2315	2345	2438	2468	645
175°	2375	2375	2361	2391	2391	225
180°	2375	2375	2375	2375	2375	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	794.9	794.9	794.9	794.9	794.9	794.9	794.9	794.9	794.9	794.9	794.9
2.5°	794.9	794.9	800.0	802.6	807.7	810.3	815.4	820.5	835.8	838.4	843.5
5°	774.5	784.7	817.9	830.7	866.5	915.0	935.5	968.8	1037.8	1058.3	1071.0
7.5°	743.8	766.8	848.6	869.0	958.5	1086.4	1140.1	1211.6	1321.5	1375.2	1418.7
10°	695.2	743.8	889.5	938.1	1083.8	1278.1	1377.8	1477.5	1643.6	1717.7	1745.8
12.5°	641.6	720.8	932.9	999.5	1209.1	1492.8	1612.9	1722.8	1912.0	2011.7	2027.0
15°	580.2	687.6	973.9	1071.0	1342.0	1671.7	1804.6	1940.1	2116.5	2188.0	2205.9
17.5°	526.5	662.0	1012.3	1114.5	1444.2	1832.7	1968.2	2080.7	2223.8	2272.4	2285.1
20°	460.1	621.1	1037.8	1170.7	1551.6	1950.3	2080.7	2167.6	2264.7	2295.4	2300.5
22.5°	411.5	577.7	1053.2	1191.2	1623.1	2021.9	2131.8	2200.8	2267.3	2277.5	2280.0
25°	370.6	529.1	1050.6	1214.2	1684.5	2065.3	2149.7	2200.8	2239.1	2244.3	2244.3
27.5°	332.3	475.4	1040.4	1219.3	1730.5	2075.6	2142.0	2177.8	2195.7	2205.9	2205.9
30°	299.1	424.3	1014.8	1209.1	1750.9	2065.3	2119.0	2136.9	2154.8	2170.1	2177.8
32.5°	273.5	375.7	976.5	1188.6	1753.5	2039.8	2078.1	2088.3	2113.9	2149.7	2162.5
35°	250.5	327.2	932.9	1160.5	1738.2	1998.9	2024.4	2034.7	2085.8	2139.5	2157.3
37.5°	227.5	291.4	876.7	1111.9	1715.2	1950.3	1968.2	1986.1	2065.3	2129.2	2149.7
40°	204.5	260.7	810.3	1058.3	1679.4	1891.5	1906.9	1935.0	2039.8	2113.9	2134.3
42.5°	186.6	235.2	738.7	1002.0	1633.4	1825.1	1848.1	1889.0	2009.1	2088.3	2111.3
45°	171.3	209.6	662.0	925.3	1574.6	1756.1	1789.3	1845.5	1973.3	2050.0	2070.4
47.5°	155.9	191.7	582.8	846.0	1510.7	1687.0	1730.5	1794.4	1924.8	1998.9	2016.8
50°	143.1	173.8	503.5	761.7	1441.7	1612.9	1664.0	1730.5	1863.4	1932.4	1955.4
52.5°	132.9	158.5	429.4	677.3	1362.4	1536.2	1595.0	1664.0	1789.3	1855.7	1871.1
55°	122.7	145.7	365.5	587.9	1280.6	1454.4	1518.3	1584.8	1707.5	1763.7	1773.9
57.5°	117.6	135.5	311.8	503.5	1193.7	1362.4	1434.0	1495.3	1610.4	1653.8	1664.0
60°	109.9	127.8	270.9	432.0	1099.2	1275.5	1336.9	1398.2	1495.3	1531.1	1538.8
62.5°	102.2	122.7	240.3	363.0	1002.0	1173.3	1234.6	1290.9	1372.7	1398.2	1408.4
65°	97.1	117.6	217.3	311.8	902.3	1065.9	1127.3	1175.8	1242.3	1267.9	1273.0
67.5°	92.0	112.5	199.4	268.4	802.6	958.5	1004.6	1050.6	1101.7	1127.3	1129.8
70°	84.3	107.4	184.0	237.7	700.3	835.8	874.2	922.7	963.6	976.5	984.1
72.5°	79.2	99.7	173.8	214.7	595.5	718.2	754.0	782.1	817.9	830.7	830.7
75°	71.6	89.5	163.6	191.7	488.2	587.9	618.6	646.7	674.8	679.9	672.2
77.5°	63.9	79.2	140.6	161.0	380.8	465.2	490.8	506.1	529.1	534.2	536.8
80°	53.7	69.0	109.9	125.2	276.0	342.5	360.4	373.2	393.6	393.6	398.7
82.5°	40.9	53.7	79.2	89.5	186.6	235.2	250.5	258.2	270.9	270.9	270.9
85°	25.6	33.2	51.1	58.8	112.5	143.1	153.4	155.9	166.1	168.7	168.7
87.5°	12.8	17.9	33.2	35.8	58.8	74.1	74.1	79.2	79.2	76.7	74.1
90°	15.9	28.7	41.5	44.6	70.1	104.1	121.2	107.7	80.8	60.6	60.6
92.5°	63.7	172.1	280.6	307.7	432.6	599.0	682.3	597.9	429.3	302.9	290.9
95°	153.0	351.4	549.8	599.4	1064.4	1684.4	1994.4	1779.7	1350.3	1028.3	991.8
97.5°	264.6	439.6	614.6	658.4	1433.7	2467.5	2984.3	2848.7	2577.3	2373.8	2304.3
100°	350.7	509.4	668.1	707.8	1568.2	2715.2	3288.8	3298.7	3318.5	3333.4	3250.7
102.5°	424.0	572.1	720.2	757.3	1629.8	2793.2	3374.9	3547.8	3893.6	4152.9	4082.0
105°	548.4	673.8	799.3	830.6	1675.5	2802.1	3365.3	3752.9	4528.0	5109.4	5071.3
107.5°	676.0	792.9	909.8	939.0	1684.0	2677.3	3174.0	3714.6	4795.8	5606.8	5616.0
110°	762.0	867.6	973.2	999.6	1671.3	2566.8	3014.6	3619.0	4827.8	5734.3	5774.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	846.5	947.2	1047.8	1072.9	1671.8	2470.3	2869.5	3488.1	4725.2	5653.0	5713.9
115°	974.1	1066.9	1159.7	1182.9	1687.2	2359.6	2695.8	3291.7	4483.4	5377.2	5461.7
117.5°	1100.0	1184.3	1268.6	1289.7	1718.5	2290.3	2576.2	3114.0	4189.5	4996.2	5089.9
120°	1173.3	1252.7	1332.0	1351.9	1744.0	2266.9	2528.4	3019.7	4002.4	4739.5	4830.6
122.5°	1245.0	1325.1	1405.2	1425.2	1780.8	2254.7	2491.8	2934.2	3819.2	4482.9	4572.7
125°	1355.1	1428.0	1501.1	1519.3	1830.2	2244.7	2451.9	2827.8	3579.5	4143.3	4226.0
127.5°	1444.3	1518.0	1591.7	1610.1	1879.5	2238.8	2418.4	2741.1	3386.6	3870.7	3940.5
130°	1492.2	1571.5	1650.8	1670.7	1915.6	2242.3	2405.6	2692.9	3267.6	3698.5	3763.0
132.5°	1541.6	1620.9	1700.3	1720.1	1944.9	2244.6	2394.5	2651.7	3166.1	3551.9	3609.7
135°	1614.9	1687.1	1759.5	1777.5	1976.8	2242.5	2375.4	2590.8	3021.5	3344.6	3394.4
137.5°	1689.9	1761.4	1833.0	1850.9	2024.6	2256.3	2372.1	2554.2	2918.4	3191.6	3232.3
140°	1752.1	1817.9	1883.9	1900.3	2053.8	2258.6	2361.0	2518.3	2832.9	3068.8	3106.9
142.5°	1799.8	1860.8	1921.7	1936.9	2078.3	2266.7	2361.0	2499.2	2775.5	2982.8	3015.6
145°	1873.2	1926.4	1979.5	1992.7	2110.1	2266.7	2345.0	2458.0	2684.1	2853.6	2878.4
147.5°	1946.5	1998.2	2049.9	2062.9	2156.9	2282.3	2345.0	2434.0	2611.8	2745.2	2765.8
150°	1994.4	2041.1	2087.9	2099.6	2181.4	2290.5	2345.0	2420.2	2570.4	2683.0	2699.6
152.5°	2043.8	2079.2	2114.6	2123.4	2197.3	2295.8	2345.0	2409.2	2537.4	2633.6	2646.2
155°	2117.1	2143.4	2169.5	2176.1	2232.4	2307.5	2345.0	2396.1	2498.1	2574.7	2583.0
157.5°	2171.3	2196.8	2222.3	2228.7	2267.4	2319.1	2345.0	2384.7	2464.1	2523.6	2529.5
160°	2208.0	2227.8	2247.7	2252.6	2283.4	2324.5	2345.0	2379.0	2447.0	2498.1	2501.5
162.5°	2244.6	2259.5	2274.3	2278.1	2300.4	2330.1	2345.0	2373.8	2431.2	2474.2	2477.4
165°	2284.5	2297.9	2311.4	2314.8	2324.9	2338.3	2345.0	2365.6	2406.6	2437.5	2440.9
167.5°	2321.2	2327.6	2333.9	2335.5	2344.0	2355.4	2361.0	2374.4	2401.4	2421.6	2423.0
170°	2345.0	2351.4	2357.8	2359.4	2360.0	2360.6	2361.0	2374.4	2401.4	2421.6	2421.6
172.5°	2357.8	2359.2	2360.6	2361.0	2361.0	2361.0	2361.0	2371.6	2392.9	2408.9	2407.6
175°	2375.4	2375.4	2375.4	2375.4	2370.6	2364.2	2361.0	2367.7	2381.2	2391.3	2391.3
177.5°	2375.4	2375.4	2375.4	2375.4	2371.6	2366.7	2364.2	2369.5	2380.1	2388.1	2386.6
180°	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	794.9	794.9
2.5°	848.6	843.5
5°	1091.5	1096.6
7.5°	1469.8	1467.2
10°	1827.6	1850.6
12.5°	2088.3	2093.4
15°	2246.8	2257.0
17.5°	2308.2	2310.7
20°	2310.7	2305.6
22.5°	2282.6	2277.5
25°	2249.4	2246.8
27.5°	2218.7	2221.2
30°	2205.9	2213.6
32.5°	2205.9	2218.7
35°	2211.0	2223.8
37.5°	2208.5	2223.8
40°	2198.2	2216.1
42.5°	2170.1	2182.9
45°	2126.7	2142.0
47.5°	2070.4	2080.7
50°	1998.9	2009.1
52.5°	1909.4	1912.0
55°	1802.1	1812.3
57.5°	1687.0	1689.6
60°	1559.2	1566.9
62.5°	1423.8	1423.8
65°	1280.6	1285.8
67.5°	1132.4	1145.2
70°	981.6	984.1
72.5°	833.3	833.3
75°	679.9	682.5
77.5°	534.2	534.2
80°	396.2	398.7
82.5°	273.5	278.6
85°	171.3	171.3
87.5°	79.2	71.6
90°	60.6	60.6
92.5°	242.6	194.5
95°	845.8	699.8
97.5°	2026.6	1748.8
100°	2919.9	2589.0
102.5°	3798.6	3515.2
105°	4919.0	4766.7
107.5°	5652.8	5689.7
110°	5932.7	6091.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5957.7	6201.5
115°	5799.6	6137.6
117.5°	5464.7	5839.5
120°	5194.7	5559.0
122.5°	4932.0	5291.2
125°	4556.9	4887.8
127.5°	4219.7	4498.8
130°	4020.9	4278.8
132.5°	3840.6	4071.5
135°	3593.5	3792.6
137.5°	3395.3	3558.2
140°	3259.2	3411.6
142.5°	3146.6	3277.6
145°	2977.7	3076.8
147.5°	2848.0	2930.1
150°	2766.3	2832.9
152.5°	2696.5	2746.8
155°	2616.2	2649.5
157.5°	2552.8	2576.2
160°	2514.9	2528.4
162.5°	2490.1	2502.9
165°	2454.4	2467.8
167.5°	2428.6	2434.3
170°	2421.6	2421.6
172.5°	2402.6	2397.7
175°	2391.3	2391.3
177.5°	2381.0	2375.4
180°	2375.4	2375.4



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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	1.75	2.46	2.86	3.58	5.12	14.94	15.65	16.05	16.77	18.31
	3H	2.44	3.08	3.56	4.20	5.77	16.77	17.41	17.90	18.54	20.10
	4H	2.73	3.34	3.87	4.47	6.03	17.41	18.02	18.55	19.15	20.71
	6H	2.97	3.54	4.12	4.66	6.24	17.84	18.40	18.98	19.53	21.11
	8H	3.04	3.57	4.18	4.71	6.29	17.96	18.50	19.11	19.64	21.21
	12H	3.05	3.56	4.20	4.69	6.29	18.03	18.53	19.18	19.67	21.26
4H	2H	8.95	9.56	10.09	10.69	12.25	15.19	15.80	16.34	16.93	18.49
	3H	10.51	11.02	11.65	12.16	13.74	17.23	17.74	18.38	18.89	20.47
	4H	10.59	11.06	11.74	12.20	13.80	18.00	18.47	19.15	19.60	21.20
	6H	10.59	11.00	11.75	12.16	13.75	18.53	18.93	19.69	20.09	21.68
	8H	10.57	10.94	11.72	12.10	13.70	18.69	19.07	19.85	20.22	21.83
	12H	10.52	10.86	11.69	12.02	13.63	18.78	19.12	19.95	20.28	21.90
8H	4H	12.03	12.41	13.18	13.56	15.16	18.04	18.42	19.20	19.57	21.18
	6H	12.26	12.57	13.44	13.77	15.37	18.67	18.98	19.85	20.17	21.78
	8H	12.28	12.55	13.46	13.72	15.35	18.89	19.16	20.07	20.33	21.96
	12H	12.24	12.48	13.43	13.65	15.31	19.03	19.27	20.22	20.44	22.10
12H	4H	12.17	12.51	13.34	13.67	15.28	17.99	18.33	19.16	19.49	21.10
	6H	12.52	12.79	13.70	13.97	15.59	18.65	18.92	19.83	20.09	21.72
	8H	12.58	12.82	13.77	13.99	15.65	18.88	19.11	20.06	20.28	21.94