

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: P938177

Luminaire Tested: SQ4-FB-125U-125D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938177
REPORT IS A COMBINATION OF REPORTS P933592 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-125D-B2750-1D-UNV-STD-W-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

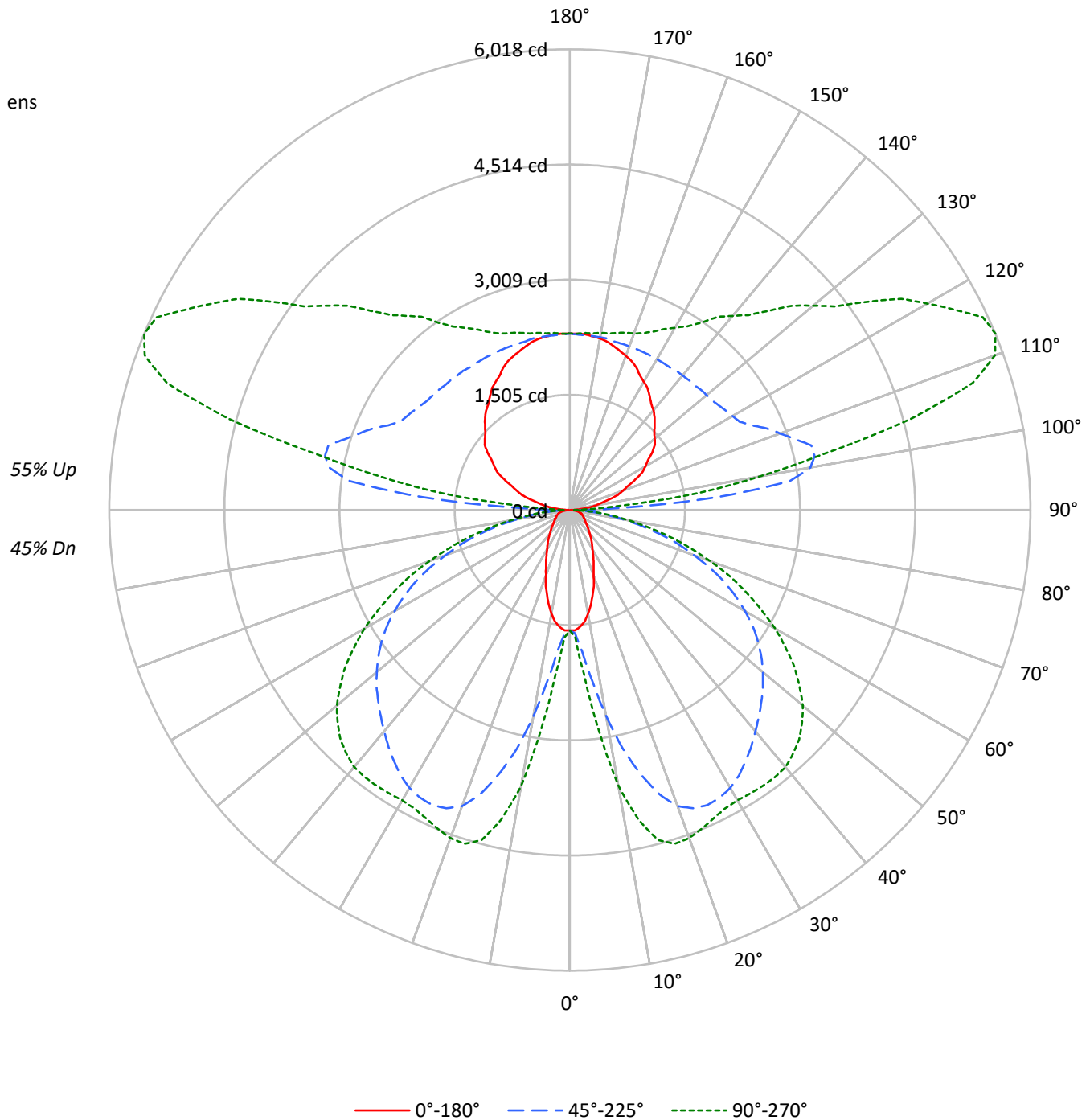
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27117.1 lumens
Efficiency: N/A
Efficacy: 120.2 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): 225.6
Input Voltage (V): NR
Input Current (Ain): 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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CATALOG NUMBER: SQ4-FB-125U-125D-B2750-1D-UNV-STD-W-12-2700K

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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	44	42	37
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	27	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	23	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4864	4864	4864
5°	4753	5623	6538
10°	4314	8199	10839
15°	3667	10714	13088
20°	2987	12419	13339
25°	2493	12999	13067
30°	2103	13085	13043
35°	1860	12871	13380
40°	1622	12592	13729
45°	1469	12389	13783
50°	1349	12207	13554
55°	1293	11939	12953
60°	1326	11420	12005
65°	1381	10628	10701
70°	1475	9275	9040
75°	1640	7570	7055
80°	1806	5255	4754
85°	1640	2794	2433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13783 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.4	0.8
10°-20°	901.5	3.3
20°-30°	1576.9	5.8
30°-40°	2030.0	7.5
40°-50°	2267.4	8.4
50°-60°	2171.7	8.0
60°-70°	1721.0	6.3
70°-80°	1012.0	3.7
80°-90°	289.9	1.1
90°-100°	1123.6	4.1
100°-110°	2954.1	10.9
110°-120°	3063.1	11.3
120°-130°	2457.0	9.1
130°-140°	1927.8	7.1
140°-150°	1479.7	5.5
150°-160°	1065.6	3.9
160°-170°	652.0	2.4
170°-180°	220.3	0.8
0°-30°	2681.9	9.9
0°-40°	4711.9	17.4
0°-60°	9150.9	33.7
0°-90°	12173.9	44.9
90°-120°	7140.8	26.3
90°-150°	13005.2	48.0
90°-180°	14943.0	55.1
0°-180°	27117.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1573	1573	1573	1573	1573	
5°	1532	1643	1851	2093	2169	141
15°	1148	2119	3570	4328	4465	319
25°	733	2402	4252	4440	4445	338
35°	496	2296	4005	4232	4399	309
45°	339	1830	3540	4055	4237	262
55°	243	1163	3004	3489	3585	221
65°	192	617	2230	2508	2543	190
75°	142	379	1224	1345	1350	148
85°	51	116	303	334	339	54
90°	15	43	118	59	59	16
95°	148	582	1935	998	679	165
105°	532	806	3266	4958	4626	564
115°	945	1148	2616	5218	5956	934
125°	1315	1474	2379	4021	4743	1167
135°	1567	1725	2305	3246	3680	1213
145°	1818	1934	2276	2769	2986	1139
155°	2054	2112	2276	2498	2571	944
165°	2217	2246	2276	2365	2395	626
175°	2305	2305	2291	2321	2321	219
180°	2305	2305	2305	2305	2305	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6
2.5°	1572.6	1572.6	1582.6	1587.7	1597.8	1602.9	1613.0	1623.1	1653.5	1658.5	1668.6
5°	1532.0	1552.3	1618.0	1643.3	1714.1	1810.2	1850.7	1916.4	2052.9	2093.4	2118.6
7.5°	1471.4	1516.9	1678.8	1719.2	1896.2	2149.0	2255.1	2396.8	2614.2	2720.4	2806.3
10°	1375.4	1471.4	1759.6	1855.6	2143.9	2528.1	2725.4	2922.6	3251.2	3397.9	3453.5
12.5°	1269.2	1425.9	1845.6	1977.1	2391.7	2952.9	3190.6	3408.0	3782.2	3979.4	4009.7
15°	1147.8	1360.1	1926.5	2118.6	2654.6	3306.9	3569.8	3837.8	4186.7	4328.3	4363.7
17.5°	1041.6	1309.6	2002.4	2204.5	2856.8	3625.4	3893.5	4115.9	4399.0	4495.1	4520.4
20°	910.1	1228.7	2052.9	2315.8	3069.3	3858.0	4115.9	4287.8	4480.0	4540.7	4550.7
22.5°	814.0	1142.7	2083.2	2356.2	3210.8	3999.6	4217.1	4353.5	4485.0	4505.2	4510.3
25°	733.2	1046.7	2078.2	2401.8	3332.1	4085.6	4252.4	4353.5	4429.4	4439.5	4439.5
27.5°	657.4	940.5	2057.9	2411.9	3423.2	4105.8	4237.3	4308.0	4343.5	4363.7	4363.7
30°	591.6	839.3	2007.3	2391.7	3463.6	4085.6	4191.8	4227.1	4262.6	4292.9	4308.0
32.5°	541.0	743.3	1931.5	2351.3	3468.7	4035.0	4110.9	4131.1	4181.6	4252.4	4277.7
35°	495.5	647.2	1845.6	2295.6	3438.4	3954.1	4004.6	4024.9	4126.0	4232.2	4267.6
37.5°	450.0	576.4	1734.3	2199.6	3392.9	3858.0	3893.5	3928.8	4085.6	4212.0	4252.4
40°	404.5	515.7	1602.9	2093.4	3322.1	3741.8	3772.1	3827.7	4035.0	4181.6	4222.0
42.5°	369.1	465.2	1461.3	1982.1	3231.0	3610.3	3655.8	3736.7	3974.3	4131.1	4176.6
45°	338.7	414.6	1309.6	1830.4	3114.7	3473.7	3539.5	3650.7	3903.5	4055.2	4095.7
47.5°	308.5	379.3	1152.9	1673.7	2988.3	3337.2	3423.2	3549.5	3807.5	3954.1	3989.5
50°	283.2	343.8	996.1	1506.8	2851.8	3190.6	3291.7	3423.2	3686.1	3822.6	3868.2
52.5°	262.9	313.5	849.5	1339.9	2695.1	3038.9	3155.2	3291.7	3539.5	3671.0	3701.2
55°	242.7	288.2	723.1	1162.9	2533.2	2877.0	3003.5	3135.0	3377.6	3488.9	3509.1
57.5°	232.6	268.0	616.9	996.1	2361.3	2695.1	2836.6	2958.0	3185.5	3271.5	3291.7
60°	217.4	252.8	535.9	854.6	2174.3	2523.2	2644.5	2765.9	2958.0	3028.7	3044.0
62.5°	202.3	242.7	475.3	718.0	1982.1	2320.9	2442.2	2553.4	2715.3	2765.9	2786.1
65°	192.1	232.6	429.8	616.9	1784.9	2108.5	2229.8	2326.0	2457.4	2507.9	2518.1
67.5°	182.1	222.5	394.4	531.0	1587.7	1896.2	1987.1	2078.2	2179.3	2229.8	2234.9
70°	166.8	212.3	364.0	470.2	1385.4	1653.5	1729.3	1825.4	1906.2	1931.5	1946.7
72.5°	156.8	197.2	343.8	424.7	1178.2	1420.9	1491.6	1547.3	1618.0	1643.3	1643.3
75°	141.5	177.0	323.6	379.3	965.7	1162.9	1223.7	1279.3	1334.8	1345.0	1329.9
77.5°	126.4	156.8	278.1	318.5	753.4	920.3	970.8	1001.2	1046.7	1056.8	1061.8
80°	106.2	136.6	217.4	247.8	546.1	677.6	712.9	738.2	778.7	778.7	788.8
82.5°	80.9	106.2	156.8	177.0	369.1	465.2	495.5	510.6	535.9	535.9	535.9
85°	50.6	65.7	101.1	116.3	222.5	283.2	303.4	308.5	328.7	333.8	333.8
87.5°	25.3	35.4	65.7	70.8	116.3	146.6	146.6	156.8	156.8	151.7	146.6
90°	15.4	27.8	40.2	43.3	68.0	101.0	117.5	104.5	78.4	58.8	58.8
92.5°	61.9	167.0	272.3	298.6	419.8	581.4	662.1	580.3	416.6	293.9	282.3
95°	148.5	341.0	533.6	581.7	1032.9	1634.5	1935.3	1727.0	1310.3	997.9	962.4
97.5°	256.8	426.6	596.5	638.9	1391.3	2394.5	2896.1	2764.4	2501.1	2303.5	2236.1
100°	340.3	494.4	648.4	686.9	1521.8	2635.0	3191.6	3201.2	3220.5	3234.9	3154.6
102.5°	411.5	555.3	698.9	734.8	1581.6	2710.6	3275.1	3442.9	3778.4	4030.1	3961.4
105°	532.2	653.9	775.6	806.1	1626.0	2719.2	3265.8	3641.9	4394.2	4958.3	4921.3
107.5°	656.0	769.4	882.9	911.2	1634.2	2598.3	3080.2	3604.8	4654.0	5440.9	5449.9
110°	739.5	841.9	944.4	970.0	1621.8	2490.9	2925.5	3512.0	4685.0	5564.8	5603.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	821.5	919.1	1016.7	1041.1	1622.3	2397.3	2784.7	3385.0	4585.5	5485.9	5545.0
115°	945.2	1035.2	1125.4	1147.9	1637.3	2289.8	2616.1	3194.4	4350.8	5218.2	5300.2
117.5°	1067.5	1149.3	1231.2	1251.6	1667.7	2222.6	2500.1	3022.0	4065.7	4848.4	4939.4
120°	1138.6	1215.6	1292.7	1311.9	1692.5	2200.0	2453.6	2930.5	3884.2	4599.4	4687.8
122.5°	1208.2	1285.9	1363.6	1383.0	1728.1	2188.1	2418.1	2847.5	3706.2	4350.3	4437.5
125°	1315.0	1385.8	1456.6	1474.4	1776.1	2178.3	2379.3	2744.1	3473.6	4020.8	4101.0
127.5°	1401.7	1473.2	1544.7	1562.5	1824.0	2172.6	2346.9	2660.0	3286.4	3756.2	3823.9
130°	1448.1	1525.1	1602.1	1621.3	1859.0	2176.1	2334.5	2613.3	3171.0	3589.2	3651.7
132.5°	1496.0	1573.0	1650.1	1669.3	1887.4	2178.3	2323.7	2573.3	3072.5	3446.9	3502.9
135°	1567.2	1637.3	1707.4	1725.0	1918.4	2176.3	2305.1	2514.2	2932.2	3245.8	3294.1
137.5°	1639.9	1709.3	1778.8	1796.1	1964.7	2189.6	2302.1	2478.7	2832.1	3097.2	3136.7
140°	1700.2	1764.1	1828.1	1844.1	1993.1	2191.8	2291.2	2443.8	2749.1	2978.0	3015.0
142.5°	1746.6	1805.7	1864.9	1879.7	2016.8	2199.8	2291.2	2425.3	2693.5	2894.6	2926.3
145°	1817.8	1869.4	1921.0	1933.8	2047.8	2199.8	2275.8	2385.4	2604.7	2769.2	2793.3
147.5°	1888.9	1939.1	1989.3	2001.9	2093.2	2214.9	2275.8	2362.0	2534.6	2664.0	2683.9
150°	1935.3	1980.7	2026.2	2037.5	2116.9	2222.8	2275.8	2348.7	2494.4	2603.6	2619.8
152.5°	1983.3	2017.7	2052.2	2060.7	2132.4	2228.0	2275.8	2338.0	2462.4	2555.7	2568.0
155°	2054.4	2079.9	2105.3	2111.7	2166.4	2239.3	2275.8	2325.3	2424.3	2498.5	2506.5
157.5°	2107.1	2131.8	2156.6	2162.8	2200.5	2250.7	2275.8	2314.2	2391.2	2449.0	2454.6
160°	2142.7	2161.9	2181.2	2186.0	2215.9	2255.8	2275.8	2308.7	2374.8	2424.3	2427.6
162.5°	2178.3	2192.7	2207.1	2210.7	2232.4	2261.3	2275.8	2303.6	2359.3	2401.1	2404.1
165°	2216.9	2229.9	2243.0	2246.3	2256.1	2269.2	2275.8	2295.7	2335.5	2365.4	2368.7
167.5°	2252.6	2258.7	2264.9	2266.4	2274.7	2285.7	2291.2	2304.2	2330.3	2350.0	2351.4
170°	2275.8	2281.9	2288.1	2289.6	2290.1	2290.8	2291.2	2304.2	2330.3	2350.0	2350.0
172.5°	2288.1	2289.5	2290.9	2291.2	2291.2	2291.2	2291.2	2301.6	2322.2	2337.6	2336.4
175°	2305.1	2305.1	2305.1	2305.1	2300.5	2294.3	2291.2	2297.8	2310.8	2320.6	2320.6
177.5°	2305.1	2305.1	2305.1	2305.1	2301.6	2296.7	2294.3	2299.5	2309.7	2317.5	2316.1
180°	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1572.6	1572.6
2.5°	1678.8	1668.6
5°	2159.1	2169.2
7.5°	2907.4	2902.3
10°	3615.3	3660.8
12.5°	4131.1	4141.2
15°	4444.6	4464.8
17.5°	4566.0	4570.9
20°	4570.9	4560.9
22.5°	4515.4	4505.2
25°	4449.6	4444.6
27.5°	4389.0	4394.1
30°	4363.7	4378.8
32.5°	4363.7	4389.0
35°	4373.7	4399.0
37.5°	4368.8	4399.0
40°	4348.5	4383.9
42.5°	4292.9	4318.2
45°	4206.9	4237.3
47.5°	4095.7	4115.9
50°	3954.1	3974.3
52.5°	3777.1	3782.2
55°	3564.8	3585.0
57.5°	3337.2	3342.3
60°	3084.4	3099.6
62.5°	2816.4	2816.4
65°	2533.2	2543.4
67.5°	2240.0	2265.3
70°	1941.7	1946.7
72.5°	1648.4	1648.4
75°	1345.0	1350.1
77.5°	1056.8	1056.8
80°	783.8	788.8
82.5°	541.0	551.2
85°	338.7	338.7
87.5°	156.8	141.5
90°	58.8	58.8
92.5°	235.5	188.7
95°	820.8	679.2
97.5°	1966.6	1697.1
100°	2833.5	2512.4
102.5°	3686.3	3411.3
105°	4773.5	4625.7
107.5°	5485.7	5521.4
110°	5757.3	5911.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5781.5	6018.0
115°	5628.2	5956.2
117.5°	5303.1	5666.8
120°	5041.2	5394.5
122.5°	4786.1	5134.7
125°	4422.1	4743.3
127.5°	4094.9	4365.8
130°	3902.0	4152.3
132.5°	3727.0	3951.1
135°	3487.2	3680.4
137.5°	3294.9	3453.0
140°	3162.9	3310.7
142.5°	3053.5	3180.7
145°	2889.5	2985.8
147.5°	2763.7	2843.5
150°	2684.5	2749.2
152.5°	2616.8	2665.6
155°	2538.9	2571.2
157.5°	2477.4	2500.1
160°	2440.6	2453.6
162.5°	2416.5	2428.8
165°	2381.7	2394.9
167.5°	2356.8	2362.3
170°	2350.0	2350.0
172.5°	2331.5	2326.8
175°	2320.6	2320.6
177.5°	2310.6	2305.1
180°	2305.1	2305.1



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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	6.02	6.87	7.01	7.88	9.22	19.21	20.06	20.21	21.07	22.41
	3H	6.73	7.49	7.73	8.51	9.87	21.06	21.82	22.06	22.84	24.20
	4H	7.02	7.75	8.04	8.77	10.14	21.71	22.43	22.72	23.45	24.82
	6H	7.27	7.94	8.30	8.97	10.35	22.14	22.81	23.17	23.83	25.21
	8H	7.34	7.98	8.37	9.02	10.40	22.26	22.90	23.29	23.94	25.32
	12H	7.36	7.96	8.40	9.00	10.40	22.33	22.94	23.37	23.98	25.38
4H	2H	13.24	13.97	14.27	14.99	16.36	19.49	20.21	20.51	21.23	22.60
	3H	14.81	15.42	15.84	16.47	17.85	21.54	22.14	22.57	23.19	24.57
	4H	14.90	15.46	15.94	16.50	17.90	22.31	22.86	23.34	23.90	25.31
	6H	14.91	15.39	15.96	16.46	17.86	22.85	23.33	23.90	24.39	25.79
	8H	14.89	15.34	15.94	16.40	17.81	23.01	23.46	24.06	24.52	25.93
	12H	14.85	15.25	15.91	16.32	17.74	23.11	23.51	24.18	24.59	26.01
8H	4H	16.35	16.80	17.40	17.86	19.27	22.36	22.81	23.41	23.87	25.28
	6H	16.59	16.96	17.67	18.06	19.47	23.00	23.37	24.07	24.47	25.88
	8H	16.61	16.94	17.69	18.02	19.45	23.22	23.55	24.30	24.63	26.06
	12H	16.58	16.87	17.66	17.94	19.41	23.37	23.65	24.45	24.73	26.20
12H	4H	16.49	16.90	17.56	17.97	19.39	22.32	22.72	23.39	23.79	25.21
	6H	16.85	17.18	17.93	18.26	19.69	22.98	23.31	24.06	24.39	25.82
	8H	16.92	17.21	18.01	18.29	19.76	23.21	23.50	24.30	24.58	26.05