

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: P938578

Luminaire Tested: SQ4-FB-150U-125D-B2750-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938578
REPORT IS A COMBINATION OF REPORTS P933624 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-125D-B2750-1D-UNV-STD-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

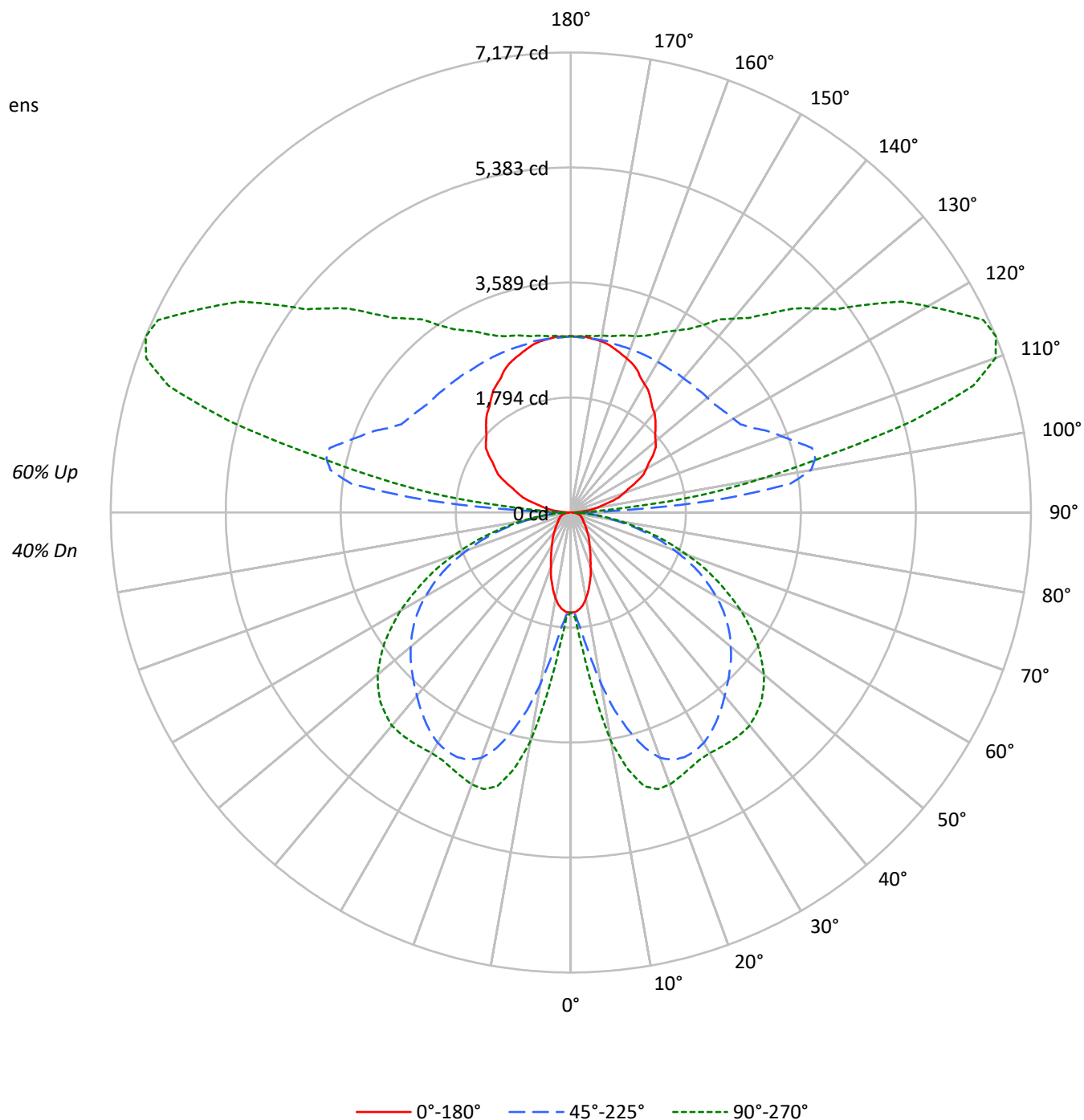
Lumens per Lamp: N/A
Luminaire Lumens: 29873.8 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 249.6
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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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47			40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39			33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32			27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27			22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23			19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19			16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17			14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15			12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13			10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11			9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10			8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4815	4815	4815
5°	4706	5567	6472
10°	4270	8116	10730
15°	3631	10607	12956
20°	2957	12294	13205
25°	2467	12869	12936
30°	2082	12953	12912
35°	1841	12741	13246
40°	1605	12466	13591
45°	1455	12264	13644
50°	1336	12084	13418
55°	1281	11819	12823
60°	1312	11305	11884
65°	1368	10522	10594
70°	1461	9182	8949
75°	1624	7493	6984
80°	1788	5203	4706
85°	1623	2765	2408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13644 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.4	0.7
10°-20°	892.5	3.0
20°-30°	1561.1	5.2
30°-40°	2009.6	6.7
40°-50°	2244.7	7.5
50°-60°	2149.9	7.2
60°-70°	1703.8	5.7
70°-80°	1001.9	3.4
80°-90°	288.8	1.0
90°-100°	1340.0	4.5
100°-110°	3522.9	11.8
110°-120°	3652.8	12.2
120°-130°	2930.0	9.8
130°-140°	2299.0	7.7
140°-150°	1764.6	5.9
150°-160°	1270.8	4.3
160°-170°	777.5	2.6
170°-180°	262.7	0.9
0°-30°	2655.0	8.9
0°-40°	4664.6	15.6
0°-60°	9059.1	30.3
0°-90°	12053.5	40.3
90°-120°	8515.7	28.5
90°-150°	15509.3	51.9
90°-180°	17820.0	59.7
0°-180°	29873.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1557	1557	1557	1557	1557	
5°	1517	1627	1832	2072	2147	140
15°	1136	2097	3534	4285	4420	316
25°	726	2378	4210	4395	4400	334
35°	490	2272	3964	4190	4355	306
45°	335	1812	3504	4014	4195	259
55°	240	1151	2973	3454	3549	219
65°	190	611	2208	2483	2518	189
75°	140	376	1211	1332	1336	147
85°	50	115	300	330	335	53
90°	18	52	140	70	70	19
95°	177	694	2308	1190	810	197
105°	635	961	3895	5913	5516	673
115°	1127	1369	3120	6223	7103	1113
125°	1568	1758	2838	4795	5657	1392
135°	1869	2057	2749	3871	4389	1446
145°	2168	2306	2714	3302	3561	1358
155°	2450	2518	2714	2980	3066	1126
165°	2644	2679	2714	2821	2856	746
175°	2749	2749	2732	2767	2767	261
180°	2749	2749	2749	2749	2749	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8
2.5°	1556.8	1556.8	1566.8	1571.8	1581.7	1586.8	1596.8	1606.8	1636.9	1641.9	1651.8
5°	1516.7	1536.7	1601.8	1626.8	1696.9	1792.1	1832.1	1897.2	2032.2	2072.4	2097.3
7.5°	1456.6	1501.7	1661.9	1701.9	1877.1	2127.4	2232.5	2372.7	2588.0	2693.1	2778.2
10°	1361.6	1456.6	1742.0	1837.0	2122.4	2502.8	2698.0	2893.2	3218.6	3363.7	3418.9
12.5°	1256.5	1411.6	1827.1	1957.2	2367.7	2923.3	3158.6	3373.8	3744.2	3939.5	3969.4
15°	1136.3	1346.5	1907.1	2097.3	2628.0	3273.7	3533.9	3799.3	4144.7	4284.9	4319.9
17.5°	1031.2	1296.5	1982.3	2182.4	2828.1	3589.0	3854.4	4074.5	4354.9	4450.0	4475.1
20°	901.0	1216.3	2032.2	2292.5	3038.5	3819.3	4074.5	4244.7	4435.0	4495.1	4505.0
22.5°	805.9	1131.2	2062.3	2332.6	3178.6	3959.5	4174.7	4309.8	4440.0	4460.0	4465.0
25°	725.8	1036.2	2057.3	2377.6	3298.7	4044.6	4209.7	4309.8	4384.9	4394.9	4394.9
27.5°	650.8	931.1	2037.3	2387.7	3388.8	4064.6	4194.7	4264.7	4299.8	4319.9	4319.9
30°	585.7	830.9	1987.2	2367.7	3428.8	4044.6	4149.7	4184.7	4219.8	4249.8	4264.7
32.5°	535.6	735.9	1912.1	2327.7	3433.8	3994.5	4069.6	4089.6	4139.6	4209.7	4234.8
35°	490.5	640.7	1827.1	2272.5	3403.9	3914.4	3964.4	3984.5	4084.6	4189.7	4224.7
37.5°	445.5	570.6	1716.9	2177.5	3358.8	3819.3	3854.4	3889.4	4044.6	4169.7	4209.7
40°	400.4	510.6	1586.8	2072.4	3288.7	3704.2	3734.2	3789.3	3994.5	4139.6	4179.7
42.5°	365.4	460.6	1446.7	1962.2	3198.6	3574.1	3619.1	3699.2	3934.4	4089.6	4134.7
45°	335.3	410.5	1296.5	1812.1	3083.4	3438.9	3503.9	3614.1	3864.3	4014.5	4054.5
47.5°	305.4	375.5	1141.3	1656.9	2958.3	3303.7	3388.8	3513.9	3769.3	3914.4	3949.4
50°	280.3	340.4	986.1	1491.7	2823.2	3158.6	3258.6	3388.8	3649.1	3784.3	3829.3
52.5°	260.3	310.4	841.0	1326.5	2668.0	3008.4	3123.5	3258.6	3503.9	3634.1	3664.1
55°	240.3	285.3	715.8	1151.3	2507.8	2848.2	2973.4	3103.5	3343.7	3453.9	3473.9
57.5°	230.2	265.3	610.7	986.1	2337.6	2668.0	2808.1	2928.3	3153.5	3238.6	3258.6
60°	215.2	250.2	530.6	846.0	2152.4	2497.8	2617.9	2738.1	2928.3	2998.3	3013.4
62.5°	200.3	240.3	470.5	710.8	1962.2	2297.6	2417.7	2527.8	2688.0	2738.1	2758.1
65°	190.2	230.2	425.5	610.7	1767.0	2087.4	2207.5	2302.6	2432.8	2482.7	2492.8
67.5°	180.2	220.3	390.5	525.6	1571.8	1877.1	1967.2	2057.3	2157.5	2207.5	2212.5
70°	165.2	210.2	360.4	465.5	1371.5	1636.9	1711.9	1807.0	1887.1	1912.1	1927.1
72.5°	155.2	195.2	340.4	420.4	1166.3	1406.6	1476.6	1531.8	1601.8	1626.8	1626.8
75°	140.1	175.2	320.4	375.5	956.0	1151.3	1211.4	1266.4	1321.4	1331.5	1316.5
77.5°	125.1	155.2	275.3	315.3	745.8	911.1	961.1	991.1	1036.2	1046.1	1051.2
80°	105.1	135.2	215.2	245.3	540.6	670.8	705.8	730.8	770.9	770.9	780.9
82.5°	80.1	105.1	155.2	175.2	365.4	460.6	490.5	505.5	530.6	530.6	530.6
85°	50.1	65.1	100.1	115.2	220.3	280.3	300.3	305.4	325.4	330.4	330.4
87.5°	25.0	35.0	65.1	70.1	115.2	145.1	145.1	155.2	155.2	150.2	145.1
90°	18.4	33.2	48.0	51.7	81.1	120.5	140.2	124.6	93.5	70.1	70.1
92.5°	73.8	199.2	324.7	356.0	500.6	693.3	789.6	692.0	496.8	350.5	336.6
95°	177.1	406.6	636.3	693.7	1231.8	1949.3	2308.0	2059.6	1562.7	1190.0	1147.8
97.5°	306.3	508.8	711.3	762.0	1659.2	2855.6	3453.7	3296.7	2982.6	2747.1	2666.7
100°	405.8	589.5	773.2	819.2	1814.8	3142.3	3806.1	3817.5	3840.5	3857.7	3762.0
102.5°	490.7	662.1	833.5	876.4	1886.1	3232.5	3905.7	4105.8	4505.9	4806.1	4724.0
105°	634.7	779.8	925.0	961.3	1939.1	3242.8	3894.6	4343.1	5240.2	5912.9	5868.9
107.5°	782.3	917.6	1052.9	1086.7	1948.8	3098.4	3673.2	4298.9	5550.1	6488.6	6499.2
110°	881.9	1004.0	1126.2	1156.8	1934.1	2970.5	3488.8	4188.2	5587.1	6636.2	6682.1

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	979.7	1096.1	1212.6	1241.7	1934.7	2858.8	3320.8	4036.7	5468.4	6542.1	6612.6
115°	1127.3	1234.7	1342.1	1369.0	1952.6	2730.7	3119.8	3809.4	5188.5	6222.9	6320.8
117.5°	1273.0	1370.5	1468.2	1492.5	1988.8	2650.5	2981.4	3603.7	4848.5	5782.0	5890.5
120°	1357.8	1449.7	1541.5	1564.5	2018.3	2623.5	2926.1	3494.7	4631.9	5484.9	5590.3
122.5°	1440.8	1533.5	1626.2	1649.4	2060.8	2609.4	2883.7	3395.7	4419.8	5187.9	5291.9
125°	1568.2	1652.6	1737.1	1758.2	2118.0	2597.7	2837.5	3272.5	4142.5	4794.9	4890.7
127.5°	1671.5	1756.8	1842.0	1863.3	2175.1	2590.9	2798.8	3172.3	3919.3	4479.5	4560.2
130°	1726.9	1818.7	1910.5	1933.4	2216.9	2595.0	2784.0	3116.5	3781.5	4280.2	4354.9
132.5°	1784.1	1875.9	1967.7	1990.6	2250.7	2597.6	2771.1	3068.7	3664.1	4110.5	4177.4
135°	1868.9	1952.5	2036.2	2057.1	2287.7	2595.3	2749.0	2998.2	3496.8	3870.6	3928.2
137.5°	1955.6	2038.5	2121.3	2142.0	2343.0	2611.1	2745.2	2955.9	3377.4	3693.6	3740.7
140°	2027.6	2103.8	2180.1	2199.2	2376.9	2613.8	2732.3	2914.3	3278.4	3551.5	3595.5
142.5°	2082.9	2153.4	2223.9	2241.6	2405.1	2623.3	2732.3	2892.2	3212.0	3451.9	3489.8
145°	2167.8	2229.3	2290.8	2306.2	2442.0	2623.3	2713.9	2844.6	3106.2	3302.4	3331.1
147.5°	2252.6	2312.5	2372.3	2387.3	2496.2	2641.3	2713.9	2816.8	3022.6	3177.0	3200.8
150°	2308.0	2362.2	2416.3	2429.8	2524.5	2650.8	2713.9	2800.8	2974.7	3105.0	3124.2
152.5°	2365.2	2406.2	2447.2	2457.4	2542.9	2656.9	2713.9	2788.1	2936.5	3047.8	3062.4
155°	2450.1	2480.5	2510.8	2518.3	2583.5	2670.4	2713.9	2772.9	2891.1	2979.6	2989.3
157.5°	2512.8	2542.3	2571.8	2579.2	2624.0	2683.9	2713.9	2759.8	2851.6	2920.5	2927.3
160°	2555.2	2578.2	2601.2	2606.9	2642.6	2690.1	2713.9	2753.2	2831.9	2891.0	2894.9
162.5°	2597.6	2614.9	2632.0	2636.4	2662.2	2696.6	2713.9	2747.1	2813.6	2863.3	2867.0
165°	2643.8	2659.3	2674.9	2678.9	2690.5	2706.1	2713.9	2737.6	2785.2	2820.8	2824.8
167.5°	2686.3	2693.7	2700.9	2702.8	2712.7	2725.8	2732.3	2747.9	2779.0	2802.4	2804.1
170°	2713.9	2721.3	2728.7	2730.5	2731.1	2731.9	2732.3	2747.9	2779.0	2802.4	2802.4
172.5°	2728.7	2730.2	2731.9	2732.3	2732.3	2732.3	2732.3	2744.6	2769.3	2787.7	2786.2
175°	2749.0	2749.0	2749.0	2749.0	2743.4	2736.1	2732.3	2740.1	2755.7	2767.4	2767.4
177.5°	2749.0	2749.0	2749.0	2749.0	2744.6	2738.9	2736.1	2742.2	2754.5	2763.7	2762.0
180°	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1556.8	1556.8
2.5°	1661.9	1651.8
5°	2137.5	2147.4
7.5°	2878.2	2873.2
10°	3579.0	3624.0
12.5°	4089.6	4099.6
15°	4399.9	4419.9
17.5°	4520.1	4525.0
20°	4525.0	4515.1
22.5°	4470.0	4460.0
25°	4405.0	4399.9
27.5°	4344.9	4349.9
30°	4319.9	4334.9
32.5°	4319.9	4344.9
35°	4329.8	4354.9
37.5°	4324.9	4354.9
40°	4304.9	4339.9
42.5°	4249.8	4274.8
45°	4164.7	4194.7
47.5°	4054.5	4074.5
50°	3914.4	3934.4
52.5°	3739.2	3744.2
55°	3529.0	3549.0
57.5°	3303.7	3308.7
60°	3053.4	3068.4
62.5°	2788.1	2788.1
65°	2507.8	2517.8
67.5°	2217.5	2242.6
70°	1922.2	1927.1
72.5°	1631.8	1631.8
75°	1331.5	1336.5
77.5°	1046.1	1046.1
80°	775.9	780.9
82.5°	535.6	545.7
85°	335.3	335.3
87.5°	155.2	140.1
90°	70.1	70.1
92.5°	280.8	225.1
95°	978.8	809.9
97.5°	2345.3	2023.9
100°	3379.1	2996.2
102.5°	4396.1	4068.0
105°	5692.7	5516.4
107.5°	6541.9	6584.5
110°	6865.8	7049.5

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6894.7	7176.8
115°	6711.8	7102.9
117.5°	6324.2	6757.9
120°	6011.7	6433.3
122.5°	5707.7	6123.4
125°	5273.6	5656.6
127.5°	4883.4	5206.4
130°	4653.3	4951.8
132.5°	4444.6	4711.9
135°	4158.7	4389.1
137.5°	3929.3	4117.8
140°	3771.8	3948.1
142.5°	3641.5	3793.1
145°	3446.0	3560.7
147.5°	3295.9	3391.0
150°	3201.3	3278.4
152.5°	3120.6	3178.8
155°	3027.7	3066.3
157.5°	2954.4	2981.4
160°	2910.5	2926.1
162.5°	2881.8	2896.6
165°	2840.4	2855.9
167.5°	2810.6	2817.2
170°	2802.4	2802.4
172.5°	2780.5	2774.8
175°	2767.4	2767.4
177.5°	2755.5	2749.0
180°	2749.0	2749.0

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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	5.52	6.33	6.55	7.37	8.77	18.71	19.52	19.74	20.56	21.96
	3H	6.22	6.95	7.26	8.00	9.42	20.55	21.28	21.59	22.33	23.75
	4H	6.52	7.21	7.57	8.26	9.68	21.20	21.89	22.25	22.94	24.37
	6H	6.76	7.40	7.82	8.46	9.89	21.63	22.27	22.69	23.32	24.76
	8H	6.83	7.44	7.90	8.51	9.94	21.75	22.36	22.82	23.43	24.86
	12H	6.85	7.42	7.92	8.49	9.95	21.82	22.40	22.89	23.46	24.92
4H	2H	12.74	13.43	13.79	14.48	15.90	18.98	19.67	20.04	20.72	22.15
	3H	14.30	14.88	15.36	15.96	17.39	21.02	21.60	22.09	22.68	24.12
	4H	14.39	14.92	15.46	15.99	17.45	21.79	22.32	22.86	23.39	24.85
	6H	14.40	14.85	15.48	15.95	17.40	22.33	22.79	23.41	23.88	25.34
	8H	14.37	14.80	15.46	15.89	17.36	22.50	22.92	23.58	24.01	25.48
	12H	14.33	14.71	15.43	15.81	17.29	22.59	22.98	23.69	24.08	25.55
8H	4H	15.83	16.26	16.92	17.35	18.82	21.85	22.27	22.93	23.36	24.83
	6H	16.07	16.43	17.18	17.55	19.02	22.48	22.83	23.58	23.96	25.43
	8H	16.09	16.40	17.20	17.51	19.00	22.70	23.01	23.81	24.12	25.61
	12H	16.06	16.33	17.17	17.44	18.96	22.85	23.12	23.96	24.23	25.75
12H	4H	15.98	16.36	17.08	17.46	18.94	21.80	22.18	22.90	23.28	24.76
	6H	16.33	16.64	17.44	17.75	19.24	22.46	22.77	23.57	23.88	25.37
	8H	16.40	16.67	17.52	17.78	19.30	22.69	22.96	23.81	24.07	25.60