

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: P938080

Luminaire Tested: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938080  
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-B2750-1D-UNV-STD-W-12-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

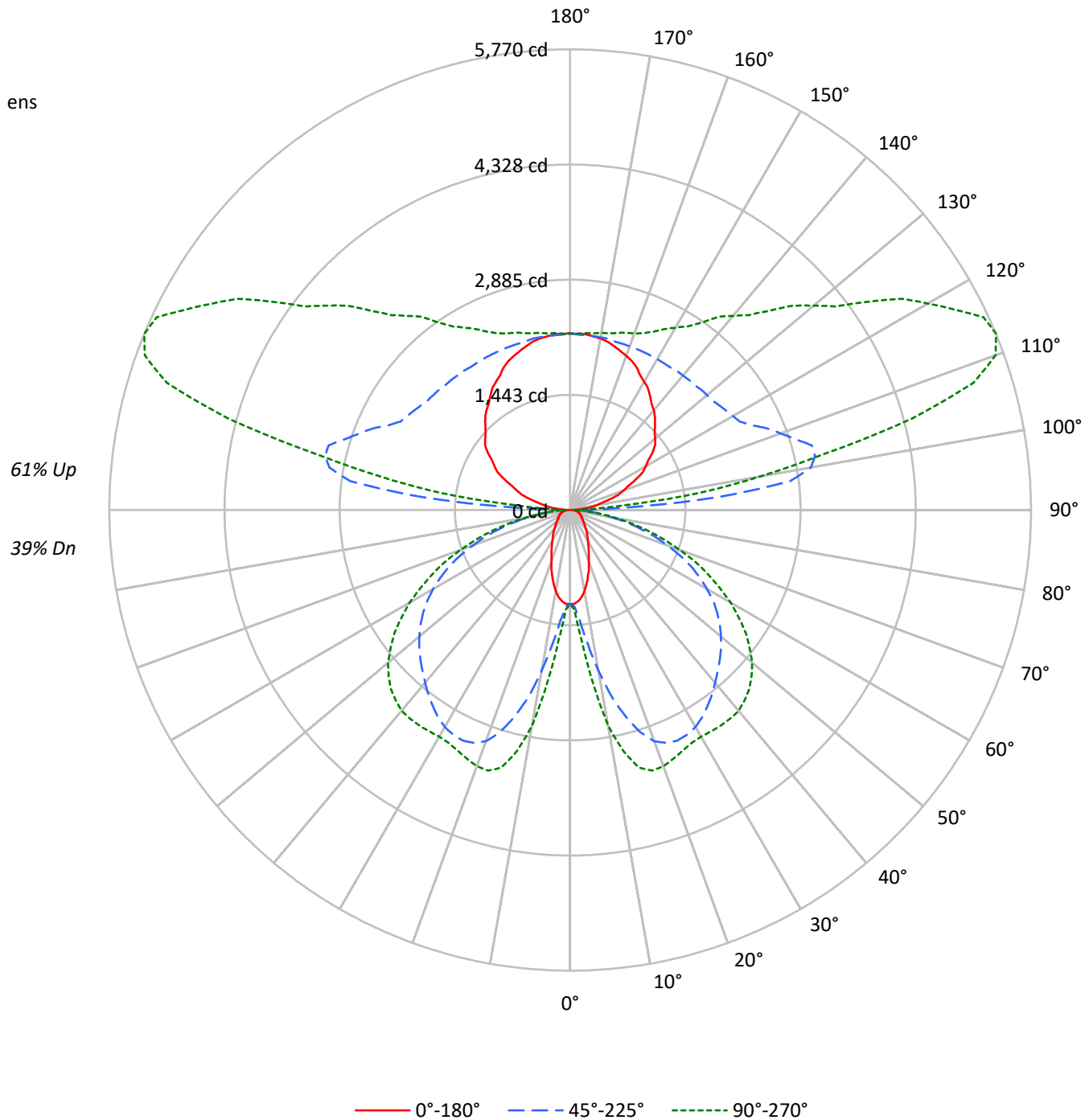
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23443.3 lumens  
Efficiency: N/A  
Efficacy: 121.3 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

TEST NUMBER: P938080  
CATALOG NUMBER: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-12-4000K

### 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			39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32			32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26			26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21			21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18			18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11			11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10			10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9			9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8			8

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

	0°	45°	90°
0°	3641	3641	3641
5°	3559	4210	4894
10°	3229	6138	8114
15°	2745	8021	9798
20°	2236	9297	9985
25°	1866	9731	9782
30°	1574	9795	9764
35°	1392	9635	10016
40°	1214	9426	10277
45°	1100	9274	10317
50°	1010	9138	10147
55°	968	8938	9697
60°	992	8549	8987
65°	1034	7956	8011
70°	1104	6944	6768
75°	1229	5666	5282
80°	1352	3934	3559
85°	1225	2091	1821

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10317 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.3	0.6
10°-20°	674.9	2.9
20°-30°	1180.5	5.0
30°-40°	1519.6	6.5
40°-50°	1697.4	7.2
50°-60°	1625.7	6.9
60°-70°	1288.4	5.5
70°-80°	757.6	3.2
80°-90°	218.9	0.9
90°-100°	1077.4	4.6
100°-110°	2832.5	12.1
110°-120°	2937.0	12.5
120°-130°	2355.8	10.0
130°-140°	1848.5	7.9
140°-150°	1418.8	6.1
150°-160°	1021.8	4.4
160°-170°	625.2	2.7
170°-180°	211.2	0.9
0°-30°	2007.7	8.6
0°-40°	3527.3	15.0
0°-60°	6850.4	29.2
0°-90°	9115.3	38.9
90°-120°	6846.8	29.2
90°-150°	12469.9	53.2
90°-180°	14328.0	61.1
0°-180°	23443.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1177	1177	1177	1177	1177	
5°	1147	1230	1385	1567	1624	106
15°	859	1586	2672	3240	3342	239
25°	549	1798	3183	3323	3327	253
35°	371	1718	2998	3168	3293	232
45°	254	1370	2650	3036	3172	196
55°	182	871	2248	2612	2684	166
65°	144	462	1669	1877	1904	143
75°	106	284	916	1007	1011	111
85°	38	87	227	250	254	40
90°	15	42	113	56	56	15
95°	142	558	1856	957	651	158
105°	510	773	3131	4754	4435	541
115°	906	1101	2508	5003	5711	895
125°	1261	1414	2281	3855	4548	1119
135°	1503	1654	2210	3112	3529	1163
145°	1743	1854	2182	2655	2863	1092
155°	1970	2025	2182	2396	2465	905
165°	2126	2154	2182	2268	2296	600
175°	2210	2210	2197	2225	2225	210
180°	2210	2210	2210	2210	2210	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2
2.5°	1177.2	1177.2	1184.8	1188.6	1196.1	1200.0	1207.5	1215.0	1237.8	1241.6	1249.1
5°	1147.0	1162.0	1211.3	1230.2	1283.2	1355.1	1385.4	1434.6	1536.8	1567.1	1586.0
7.5°	1101.5	1135.6	1256.7	1287.0	1419.4	1608.7	1688.2	1794.2	1957.0	2036.4	2100.8
10°	1029.6	1101.5	1317.2	1389.1	1605.0	1892.6	2040.3	2187.9	2433.9	2543.6	2585.3
12.5°	950.1	1067.4	1381.6	1480.1	1790.4	2210.5	2388.5	2551.3	2831.4	2979.0	3001.7
15°	859.2	1018.2	1442.1	1586.0	1987.3	2475.6	2672.4	2873.0	3134.2	3240.1	3266.7
17.5°	779.8	980.4	1499.0	1650.3	2138.6	2714.0	2914.7	3081.2	3293.1	3365.0	3384.0
20°	681.3	919.9	1536.8	1733.6	2297.6	2888.1	3081.2	3209.9	3353.7	3399.1	3406.7
22.5°	609.4	855.5	1559.5	1763.9	2403.6	2994.1	3156.8	3259.1	3357.5	3372.7	3376.4
25°	548.8	783.6	1555.7	1798.0	2494.5	3058.5	3183.4	3259.1	3315.9	3323.4	3323.4
27.5°	492.1	704.0	1540.6	1805.5	2562.6	3073.6	3172.0	3225.0	3251.5	3266.7	3266.7
30°	442.8	628.4	1502.7	1790.4	2592.9	3058.5	3137.9	3164.5	3190.9	3213.7	3225.0
32.5°	405.0	556.4	1446.0	1760.2	2596.6	3020.7	3077.4	3092.6	3130.4	3183.4	3202.3
35°	370.9	484.5	1381.6	1718.5	2573.9	2960.0	2997.9	3013.0	3088.8	3168.2	3194.8
37.5°	336.9	431.6	1298.3	1646.6	2539.9	2888.1	2914.7	2941.1	3058.5	3153.1	3183.4
40°	302.8	386.1	1200.0	1567.1	2486.9	2801.1	2823.7	2865.4	3020.7	3130.4	3160.7
42.5°	276.3	348.3	1094.0	1483.8	2418.7	2702.6	2736.7	2797.3	2975.2	3092.6	3126.6
45°	253.6	310.4	980.4	1370.2	2331.7	2600.5	2649.6	2732.9	2922.2	3035.8	3066.0
47.5°	230.9	283.9	863.0	1253.0	2237.1	2498.3	2562.6	2657.2	2850.3	2960.0	2986.6
50°	212.0	257.4	745.7	1128.0	2134.9	2388.5	2464.2	2562.6	2759.5	2861.7	2895.8
52.5°	196.8	234.6	635.9	1003.1	2017.5	2274.9	2362.0	2464.2	2649.6	2748.1	2770.8
55°	181.7	215.7	541.3	870.6	1896.4	2153.8	2248.5	2346.8	2528.6	2611.8	2626.9
57.5°	174.1	200.6	461.8	745.7	1767.7	2017.5	2123.5	2214.4	2384.7	2449.0	2464.2
60°	162.7	189.3	401.2	639.7	1627.6	1888.8	1979.7	2070.5	2214.4	2267.4	2278.7
62.5°	151.4	181.7	355.8	537.5	1483.8	1737.4	1828.3	1911.5	2032.7	2070.5	2085.6
65°	143.8	174.1	321.7	461.8	1336.2	1578.4	1669.2	1741.3	1839.6	1877.4	1885.1
67.5°	136.3	166.6	295.3	397.5	1188.6	1419.4	1487.6	1555.7	1631.4	1669.2	1673.1
70°	124.9	159.0	272.6	352.0	1037.1	1237.8	1294.6	1366.5	1427.1	1446.0	1457.3
72.5°	117.4	147.6	257.4	317.9	881.9	1063.7	1116.7	1158.3	1211.3	1230.2	1230.2
75°	106.0	132.5	242.3	283.9	722.9	870.6	916.0	957.7	999.3	1006.9	995.5
77.5°	94.6	117.4	208.2	238.5	564.0	688.9	726.8	749.5	783.6	791.1	794.9
80°	79.5	102.2	162.7	185.5	408.8	507.2	533.7	552.7	582.9	582.9	590.5
82.5°	60.5	79.5	117.4	132.5	276.3	348.3	370.9	382.3	401.2	401.2	401.2
85°	37.8	49.2	75.7	87.1	166.6	212.0	227.1	230.9	246.0	249.8	249.8
87.5°	18.9	26.5	49.2	53.0	87.1	109.7	109.7	117.4	117.4	113.5	109.7
90°	14.8	26.6	38.6	41.5	65.2	96.8	112.7	100.2	75.2	56.3	56.3
92.5°	59.3	160.2	261.1	286.3	402.5	557.4	634.9	556.4	399.5	281.8	270.6
95°	142.4	327.0	511.6	557.7	990.3	1567.3	1855.7	1655.9	1256.4	956.8	922.8
97.5°	246.2	409.0	571.9	612.6	1334.0	2295.9	2776.9	2650.6	2398.1	2208.7	2144.1
100°	326.3	474.1	621.7	658.7	1459.1	2526.5	3060.2	3069.5	3087.9	3101.7	3024.8
102.5°	394.6	532.4	670.1	704.6	1516.5	2599.0	3140.3	3301.1	3622.9	3864.2	3798.3
105°	510.3	627.0	743.7	772.9	1559.0	2607.2	3131.3	3492.0	4213.3	4754.2	4718.8
107.5°	629.0	737.7	846.5	873.7	1567.0	2491.3	2953.4	3456.4	4462.4	5217.0	5225.6
110°	709.1	807.3	905.5	930.1	1555.0	2388.4	2805.0	3367.4	4492.1	5335.7	5372.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	787.7	881.3	974.9	998.3	1555.5	2298.6	2670.1	3245.7	4396.7	5260.0	5316.8
115°	906.3	992.6	1079.1	1100.6	1569.9	2195.5	2508.4	3062.9	4171.7	5003.4	5082.0
117.5°	1023.6	1102.0	1180.5	1200.1	1599.1	2131.1	2397.1	2897.6	3898.3	4648.8	4736.0
120°	1091.8	1165.6	1239.5	1257.9	1622.8	2109.4	2352.6	2809.9	3724.3	4410.1	4494.8
122.5°	1158.5	1233.0	1307.5	1326.1	1656.9	2098.0	2318.5	2730.2	3553.7	4171.2	4254.8
125°	1260.9	1328.8	1396.7	1413.7	1703.0	2088.6	2281.4	2631.1	3330.7	3855.2	3932.2
127.5°	1344.0	1412.5	1481.1	1498.2	1748.9	2083.1	2250.3	2550.5	3151.1	3601.6	3666.5
130°	1388.5	1462.3	1536.1	1554.5	1782.5	2086.5	2238.4	2505.7	3040.4	3441.4	3501.4
132.5°	1434.4	1508.2	1582.1	1600.6	1809.7	2088.6	2228.0	2467.3	2946.0	3305.0	3358.7
135°	1502.7	1569.9	1637.2	1654.0	1839.4	2086.7	2210.3	2410.7	2811.5	3112.2	3158.5
137.5°	1572.4	1639.0	1705.5	1722.2	1883.8	2099.5	2207.3	2376.7	2715.5	2969.7	3007.6
140°	1630.2	1691.5	1752.8	1768.2	1911.1	2101.6	2196.9	2343.2	2635.9	2855.4	2890.9
142.5°	1674.7	1731.4	1788.1	1802.3	1933.8	2109.2	2196.9	2325.4	2582.6	2775.4	2805.9
145°	1743.0	1792.4	1841.9	1854.2	1963.5	2109.2	2182.1	2287.2	2497.5	2655.2	2678.3
147.5°	1811.2	1859.3	1907.4	1919.5	2007.0	2123.7	2182.1	2264.8	2430.3	2554.3	2573.4
150°	1855.7	1899.2	1942.8	1953.6	2029.8	2131.3	2182.1	2252.0	2391.7	2496.5	2511.9
152.5°	1901.7	1934.6	1967.7	1975.9	2044.7	2136.2	2182.1	2241.8	2361.0	2450.5	2462.3
155°	1969.9	1994.3	2018.7	2024.8	2077.2	2147.1	2182.1	2229.5	2324.5	2395.6	2403.4
157.5°	2020.4	2044.1	2067.9	2073.8	2109.9	2158.0	2182.1	2218.9	2292.8	2348.2	2353.6
160°	2054.5	2072.9	2091.4	2096.0	2124.7	2163.0	2182.1	2213.7	2277.0	2324.5	2327.6
162.5°	2088.6	2102.4	2116.3	2119.7	2140.5	2168.2	2182.1	2208.8	2262.2	2302.2	2305.2
165°	2125.6	2138.1	2150.7	2153.8	2163.3	2175.8	2182.1	2201.2	2239.4	2268.0	2271.2
167.5°	2159.8	2165.7	2171.7	2173.1	2181.0	2191.6	2196.9	2209.4	2234.4	2253.2	2254.6
170°	2182.1	2188.0	2193.9	2195.4	2195.8	2196.5	2196.9	2209.4	2234.4	2253.2	2253.2
172.5°	2193.9	2195.3	2196.6	2196.9	2196.9	2196.9	2196.9	2206.8	2226.6	2241.4	2240.2
175°	2210.3	2210.3	2210.3	2210.3	2205.8	2199.8	2196.9	2203.2	2215.7	2225.1	2225.1
177.5°	2210.3	2210.3	2210.3	2210.3	2206.8	2202.1	2199.8	2204.8	2214.6	2222.1	2220.8
180°	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1177.2	1177.2
2.5°	1256.7	1249.1
5°	1616.3	1623.9
7.5°	2176.5	2172.7
10°	2706.5	2740.5
12.5°	3092.6	3100.1
15°	3327.2	3342.4
17.5°	3418.0	3421.9
20°	3421.9	3414.3
22.5°	3380.2	3372.7
25°	3331.0	3327.2
27.5°	3285.6	3289.4
30°	3266.7	3278.0
32.5°	3266.7	3285.6
35°	3274.2	3293.1
37.5°	3270.4	3293.1
40°	3255.3	3281.8
42.5°	3213.7	3232.6
45°	3149.3	3172.0
47.5°	3066.0	3081.2
50°	2960.0	2975.2
52.5°	2827.6	2831.4
55°	2668.6	2683.7
57.5°	2498.3	2502.0
60°	2309.0	2320.4
62.5°	2108.4	2108.4
65°	1896.4	1904.0
67.5°	1676.9	1695.8
70°	1453.5	1457.3
72.5°	1234.0	1234.0
75°	1006.9	1010.7
77.5°	791.1	791.1
80°	586.8	590.5
82.5°	405.0	412.6
85°	253.6	253.6
87.5°	117.4	106.0
90°	56.3	56.3
92.5°	225.8	181.0
95°	787.0	651.2
97.5°	1885.6	1627.2
100°	2716.9	2409.0
102.5°	3534.6	3270.9
105°	4577.0	4435.3
107.5°	5259.9	5294.1
110°	5520.3	5667.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5543.5	5770.3
115°	5396.5	5711.0
117.5°	5084.8	5433.6
120°	4833.6	5172.5
122.5°	4589.1	4923.3
125°	4240.1	4548.0
127.5°	3926.3	4186.1
130°	3741.4	3981.4
132.5°	3573.6	3788.5
135°	3343.6	3528.9
137.5°	3159.2	3310.9
140°	3032.7	3174.4
142.5°	2927.8	3049.8
145°	2770.6	2862.9
147.5°	2649.9	2726.4
150°	2574.0	2636.0
152.5°	2509.1	2555.9
155°	2434.4	2465.3
157.5°	2375.4	2397.1
160°	2340.1	2352.6
162.5°	2317.0	2328.9
165°	2283.7	2296.3
167.5°	2259.8	2265.1
170°	2253.2	2253.2
172.5°	2235.6	2231.0
175°	2225.1	2225.1
177.5°	2215.5	2210.3
180°	2210.3	2210.3



TEST NUMBER: P938080  
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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	4.39	5.19	5.43	6.24	7.66	17.58	18.38	18.62	19.43	20.85
	3H	5.09	5.81	6.14	6.87	8.30	19.42	20.14	20.47	21.20	22.63
	4H	5.38	6.06	6.45	7.13	8.57	20.07	20.75	21.13	21.81	23.25
	6H	5.63	6.26	6.70	7.32	8.78	20.50	21.12	21.57	22.19	23.65
	8H	5.70	6.29	6.77	7.38	8.83	20.62	21.22	21.70	22.30	23.75
	12H	5.71	6.28	6.79	7.36	8.83	20.69	21.26	21.77	22.33	23.81
4H	2H	11.60	12.28	12.67	13.35	14.79	17.85	18.53	18.92	19.59	21.03
	3H	13.17	13.73	14.24	14.82	16.28	19.89	20.46	20.97	21.55	23.01
	4H	13.26	13.78	14.34	14.86	16.34	20.66	21.18	21.74	22.26	23.74
	6H	13.26	13.71	14.35	14.82	16.29	21.20	21.65	22.29	22.75	24.22
	8H	13.24	13.66	14.33	14.75	16.24	21.36	21.78	22.45	22.88	24.37
	12H	13.19	13.57	14.30	14.68	16.17	21.46	21.84	22.56	22.94	24.44
8H	4H	14.70	15.12	15.79	16.21	17.70	20.71	21.13	21.81	22.23	23.72
	6H	14.94	15.29	16.05	16.42	17.91	21.34	21.69	22.46	22.83	24.31
	8H	14.96	15.26	16.08	16.38	17.88	21.57	21.87	22.69	22.99	24.49
	12H	14.92	15.19	16.05	16.30	17.85	21.71	21.98	22.84	23.09	24.64
12H	4H	14.84	15.22	15.95	16.33	17.82	20.66	21.04	21.77	22.15	23.65
	6H	15.20	15.50	16.32	16.62	18.13	21.33	21.63	22.45	22.75	24.26
	8H	15.26	15.53	16.39	16.65	18.19	21.56	21.82	22.68	22.94	24.48