

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: P845559

Luminaire Tested: SQ2R-PC3-125D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845559
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-6)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PC3-125D-830-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
1250 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

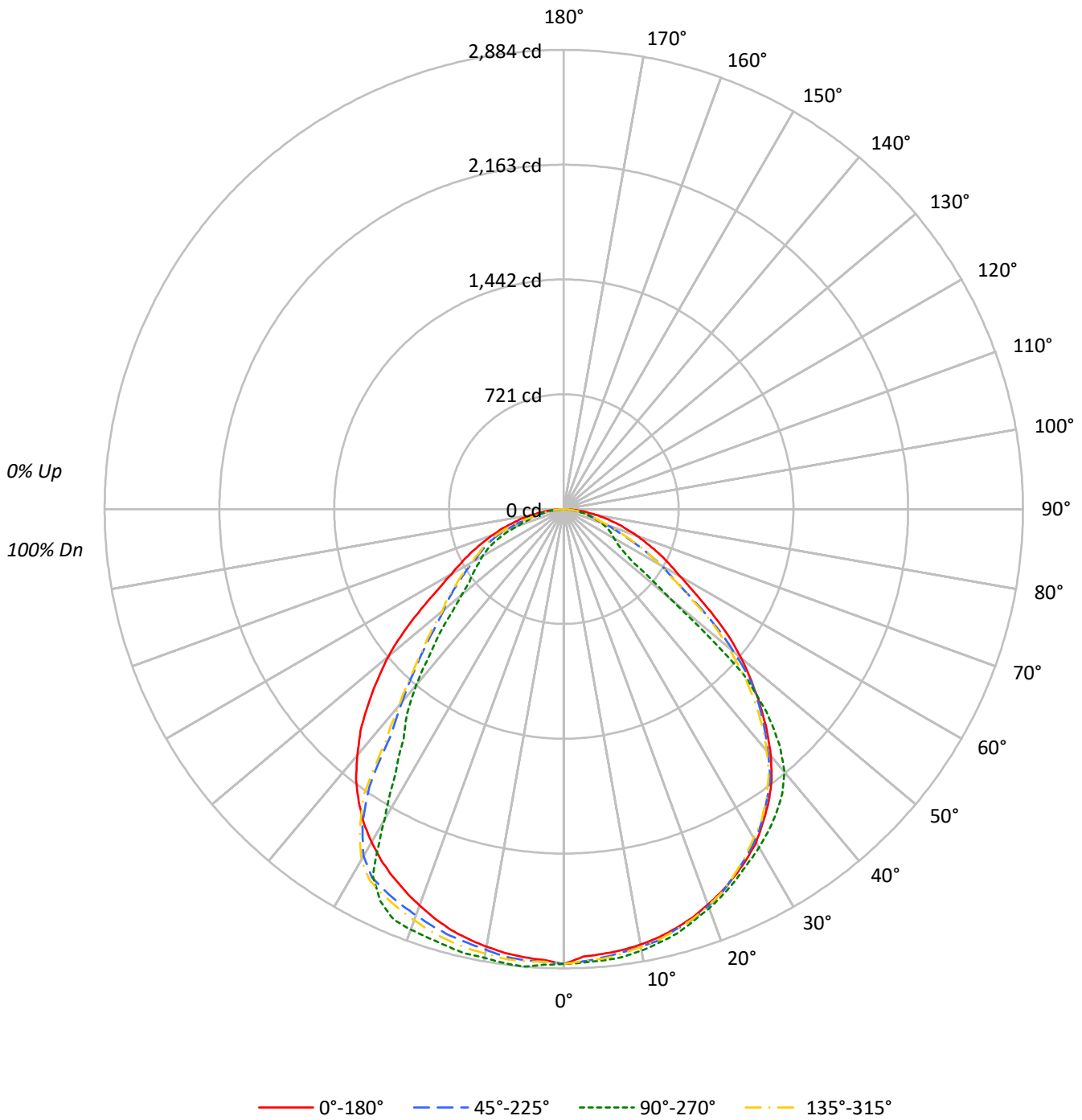
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6403.3 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.21 / 1.25
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 49.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9979
Total Harmonic Distortion (THDi): 0.0523
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P845559
CATALOG NUMBER: SQ2R-PC3-125D-830-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845559

CATALOG NUMBER: SQ2R-PC3-125D-830-UNV-STD-W-4

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	93	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	63	59	57				57
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50				50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44				44
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	31	41	35	31	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	46116	46116	46116	46116
5°	45451	46115	45804	46734
10°	45529	46155	45752	46916
15°	45551	46099	45733	47468
20°	45416	45838	45510	48278
25°	45289	45678	45337	48450
30°	45054	45716	45002	42051
35°	44240	45910	44240	34552
40°	42647	45465	42474	30387
45°	39840	41087	39717	25126
50°	36557	21675	36078	20919
55°	31823	12529	30745	19446
60°	27157	11728	26276	19046
65°	25142	11996	24306	18048
70°	23075	11731	22428	14309
75°	21123	10561	20443	12944
80°	18791	9391	17769	12952
85°	14172	5057	13153	6576

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 41087 cd/sqm

TEST NUMBER: P845559

CATALOG NUMBER: SQ2R-PC3-125D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.8	4.2
10°-20°	782.4	12.2
20°-30°	1195.5	18.7
30°-40°	1351.2	21.1
40°-50°	1181.0	18.4
50°-60°	781.5	12.2
60°-70°	510.6	8.0
70°-80°	267.2	4.2
80°-90°	63.0	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2248.8	35.1
0°-40°	3600.0	56.2
0°-60°	5562.5	86.9
0°-90°	6403.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6403.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2856	2856	2856	2856	2856	
5°	2804	2845	2826	2884	2804	267
15°	2725	2758	2736	2840	2725	769
25°	2542	2564	2545	2720	2542	1172
35°	2244	2329	2244	1753	2244	1399
45°	1745	1799	1739	1100	1745	1344
55°	1130	445	1092	691	1130	1015
65°	658	314	636	472	658	651
75°	339	169	328	208	339	360
85°	76	27	71	36	76	93
90°	0	0	0	0	0	



TEST NUMBER: P845559

CATALOG NUMBER: SQ2R-PC3-125D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2856.2	2856.2	2856.2	2856.2	2856.2	2856.2	2856.2	2856.2	2856.2	2856.2	2856.2
2.5°	2812.5	2883.5	2842.5	2839.8	2850.7	2853.4	2839.8	2869.8	2834.3	2872.6	2845.3
5°	2804.3	2875.3	2826.1	2820.7	2845.3	2837.1	2834.3	2861.6	2826.1	2856.2	2842.5
7.5°	2793.4	2858.9	2807.0	2804.3	2837.1	2826.1	2815.2	2848.0	2812.5	2845.3	2834.3
10°	2777.0	2834.3	2790.6	2793.4	2815.2	2804.3	2793.4	2820.7	2790.6	2831.6	2809.8
12.5°	2755.1	2812.5	2771.5	2763.3	2787.9	2768.8	2768.8	2790.6	2766.1	2809.8	2790.6
15°	2725.1	2782.5	2730.6	2736.0	2757.9	2738.8	2733.3	2760.6	2736.0	2779.7	2771.5
17.5°	2689.6	2738.8	2700.5	2703.3	2711.5	2703.3	2697.8	2719.6	2695.1	2741.5	2747.0
20°	2643.2	2700.5	2651.4	2651.4	2667.8	2645.9	2651.4	2670.5	2648.7	2703.3	2714.2
22.5°	2596.8	2651.4	2605.0	2605.0	2618.6	2588.6	2602.2	2615.9	2599.5	2659.6	2684.1
25°	2542.2	2585.8	2534.0	2550.4	2564.0	2536.7	2534.0	2555.8	2544.9	2605.0	2648.7
27.5°	2482.1	2520.3	2471.2	2493.0	2506.7	2487.5	2463.0	2490.3	2484.8	2553.1	2607.7
30°	2416.6	2452.1	2402.9	2432.9	2452.1	2424.7	2386.5	2411.1	2413.8	2493.0	2514.9
32.5°	2329.2	2364.7	2318.3	2367.4	2394.7	2356.5	2312.8	2326.4	2337.4	2416.6	2353.8
35°	2244.5	2260.9	2225.4	2288.2	2329.2	2282.8	2217.2	2233.6	2244.5	2334.6	2129.8
37.5°	2143.5	2143.5	2129.8	2198.1	2252.7	2184.5	2113.5	2121.7	2143.5	2220.0	1774.9
40°	2023.4	2007.0	1993.3	2083.4	2157.1	2067.0	1982.4	1985.1	2015.2	2034.3	1581.0
42.5°	1889.6	1870.4	1865.0	1960.5	2004.2	1930.5	1843.1	1845.9	1889.6	1777.6	1400.8
45°	1744.8	1736.6	1731.2	1796.7	1799.4	1753.0	1690.2	1703.9	1739.4	1534.6	1239.7
47.5°	1597.4	1591.9	1589.2	1537.3	1526.4	1493.6	1526.4	1556.4	1586.5	1280.6	1092.2
50°	1455.4	1417.2	1395.3	1204.2	862.9	1185.1	1343.4	1395.3	1436.3	1116.8	983.0
52.5°	1299.8	1267.0	1198.7	920.2	546.1	914.7	1176.9	1242.4	1267.0	1015.8	901.1
55°	1130.5	1130.5	983.0	589.8	445.1	619.8	966.6	1111.3	1092.2	909.3	808.2
57.5°	969.4	1002.1	816.4	395.9	393.2	395.9	811.0	988.5	933.9	824.6	731.8
60°	841.0	890.2	707.2	352.2	363.2	346.8	693.6	879.2	813.7	734.5	647.1
62.5°	745.4	786.4	584.3	322.2	341.3	316.7	587.1	783.7	720.9	669.0	589.8
65°	658.1	699.0	461.5	294.9	314.0	289.4	475.1	693.6	636.2	595.3	537.9
67.5°	565.2	603.5	365.9	267.6	281.2	264.9	382.3	603.5	551.6	524.3	469.7
70°	488.8	532.5	278.5	240.3	248.5	237.6	297.6	521.5	475.1	464.2	401.4
72.5°	412.3	447.8	215.7	213.0	210.3	207.5	218.4	445.1	401.4	382.3	311.3
75°	338.6	363.2	177.5	177.5	169.3	172.0	177.5	363.2	327.7	311.3	221.2
77.5°	267.6	286.7	144.7	139.3	131.1	131.1	142.0	278.5	259.4	240.3	147.5
80°	202.1	207.5	109.2	103.8	101.0	101.0	109.2	202.1	191.1	172.0	114.7
82.5°	136.5	114.7	73.7	76.5	73.7	73.7	71.0	117.4	128.3	87.4	84.6
85°	76.5	51.9	46.4	35.5	27.3	30.0	43.7	49.2	71.0	46.4	54.6
87.5°	27.3	21.8	8.2	10.9	8.2	8.2	8.2	21.8	21.8	16.4	8.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845559

CATALOG NUMBER: SQ2R-PC3-125D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2856.2	2856.2	2856.2	2856.2	2856.2	2856.2
2.5°	2848.0	2864.4	2861.6	2845.3	2880.8	2812.5
5°	2850.7	2883.5	2867.1	2850.7	2872.6	2804.3
7.5°	2837.1	2875.3	2856.2	2848.0	2869.8	2793.4
10°	2828.9	2861.6	2845.3	2834.3	2856.2	2777.0
12.5°	2820.7	2858.9	2837.1	2823.4	2837.1	2755.1
15°	2798.8	2839.8	2826.1	2804.3	2804.3	2725.1
17.5°	2782.5	2823.4	2809.8	2779.7	2766.1	2689.6
20°	2771.5	2809.8	2790.6	2747.0	2725.1	2643.2
22.5°	2747.0	2790.6	2760.6	2714.2	2684.1	2596.8
25°	2703.3	2719.6	2716.9	2676.0	2626.8	2542.2
27.5°	2588.6	2596.8	2605.0	2632.3	2577.7	2482.1
30°	2389.2	2255.5	2422.0	2544.9	2517.6	2416.6
32.5°	2012.4	1968.7	2067.0	2383.8	2438.4	2329.2
35°	1804.9	1753.0	1834.9	2187.2	2348.3	2244.5
37.5°	1616.5	1616.5	1638.3	1837.7	2247.3	2143.5
40°	1482.7	1441.7	1501.8	1611.0	2094.3	2023.4
42.5°	1267.0	1253.3	1291.6	1419.9	1862.2	1889.6
45°	1116.8	1100.4	1135.9	1258.8	1611.0	1744.8
47.5°	1002.1	942.0	1021.2	1122.3	1365.3	1597.4
50°	895.6	832.8	909.3	996.7	1157.8	1455.4
52.5°	802.8	745.4	821.9	917.5	1051.3	1299.8
55°	707.2	690.8	726.3	827.4	947.5	1130.5
57.5°	628.0	633.5	639.0	748.2	851.9	969.4
60°	578.9	589.8	587.1	671.7	772.8	841.0
62.5°	529.7	535.2	535.2	603.5	696.3	745.4
65°	472.4	472.4	477.8	554.3	630.8	658.1
67.5°	409.6	398.7	417.8	488.8	559.8	565.2
70°	322.2	303.1	335.9	423.2	499.7	488.8
72.5°	232.1	243.0	237.6	333.1	428.7	412.3
75°	191.1	207.5	193.9	237.6	349.5	338.6
77.5°	161.1	174.8	161.1	152.9	281.2	267.6
80°	128.3	139.3	128.3	117.4	207.5	202.1
82.5°	92.8	95.6	92.8	87.4	136.5	136.5
85°	43.7	35.5	49.2	57.3	54.6	76.5
87.5°	8.2	8.2	8.2	10.9	30.0	27.3
90°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845559

CATALOG NUMBER: SQ2R-PC3-125D-830-UNV-STD-W-4

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	23.54	25.02	23.90	25.34	25.65	21.04	22.52	21.40	22.84	23.15
	3H	25.17	26.51	25.55	26.83	27.20	22.52	23.85	22.90	24.18	24.54
	4H	25.77	27.02	26.18	27.37	27.75	22.97	24.22	23.37	24.57	24.95
	6H	26.21	27.36	26.62	27.72	28.12	23.36	24.51	23.77	24.88	25.27
	8H	26.33	27.43	26.76	27.82	28.22	23.48	24.57	23.91	24.96	25.36
	12H	26.40	27.44	26.83	27.82	28.25	23.52	24.57	23.95	24.95	25.38
4H	2H	23.80	25.05	24.20	25.40	25.78	21.85	23.09	22.25	23.44	23.82
	3H	25.70	26.73	26.11	27.13	27.53	23.49	24.52	23.90	24.92	25.33
	4H	26.45	27.37	26.88	27.79	28.23	24.00	24.93	24.43	25.34	25.78
	6H	27.03	27.84	27.49	28.28	28.74	24.47	25.28	24.93	25.72	26.18
	8H	27.21	27.96	27.67	28.40	28.87	24.62	25.37	25.09	25.82	26.29
	12H	27.30	27.97	27.79	28.45	28.93	24.69	25.36	25.17	25.84	26.31
8H	4H	26.52	27.27	26.98	27.71	28.18	24.31	25.06	24.78	25.51	25.98
	6H	27.20	27.82	27.70	28.32	28.79	24.86	25.48	25.36	25.97	26.45
	8H	27.44	28.00	27.96	28.51	29.00	25.06	25.62	25.58	26.13	26.62
	12H	27.59	28.08	28.10	28.57	29.14	25.17	25.67	25.68	26.16	26.72
12H	4H	26.50	27.17	26.98	27.65	28.12	24.35	25.02	24.83	25.50	25.97
	6H	27.19	27.74	27.70	28.25	28.74	24.91	25.46	25.42	25.97	26.46
	8H	27.46	27.96	27.97	28.45	29.01	25.15	25.65	25.67	26.14	26.71