

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: P845561

Luminaire Tested: SQ2R-PC3-125D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845561
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-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
1250 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

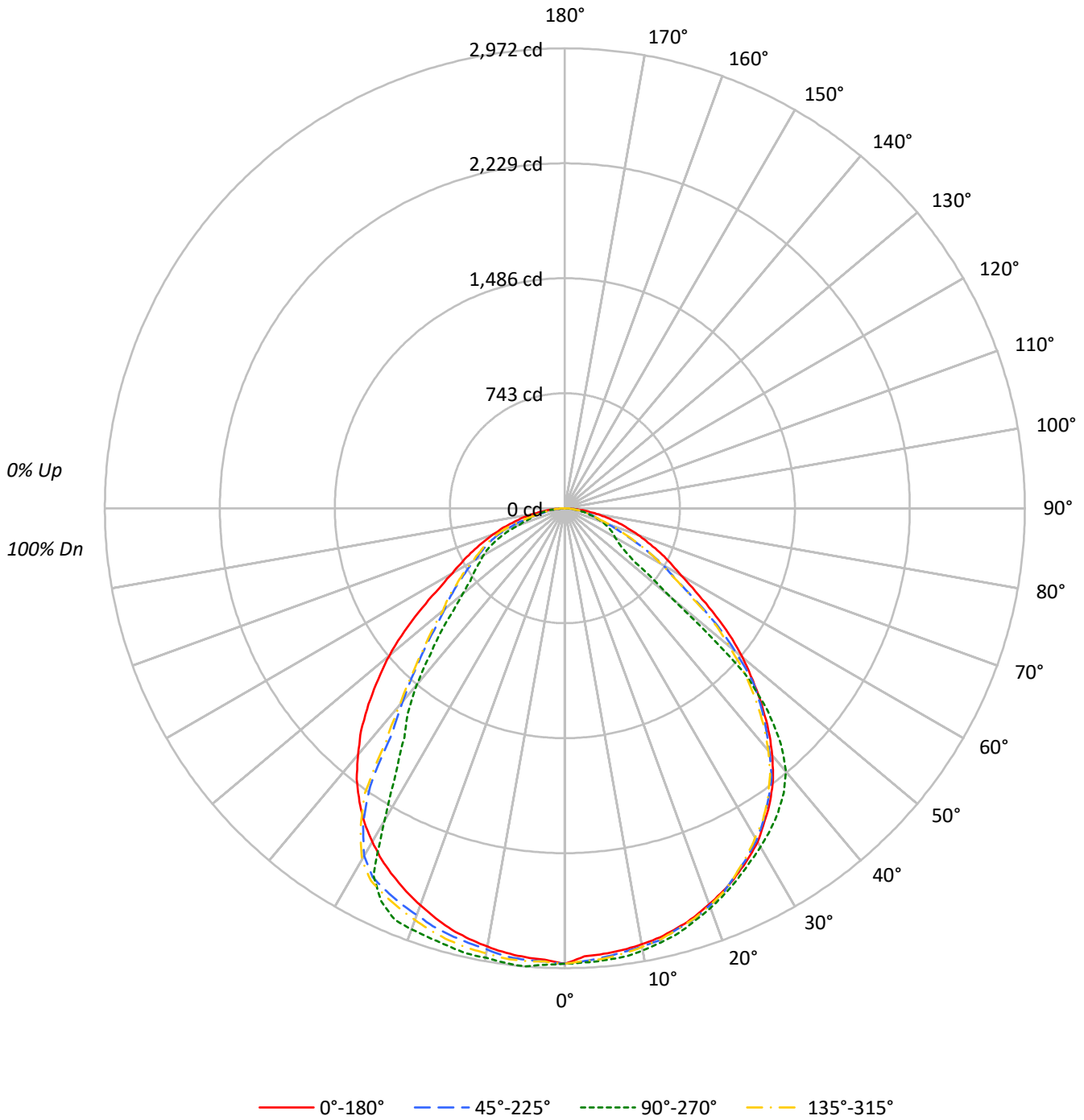
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6600.2 lumens
Efficiency: N/A
Efficacy: 134.1 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

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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	93	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	63	59	57
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	31	41	35	31	30

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	47533	47533	47533	47533
5°	46848	47532	47212	48170
10°	46929	47575	47158	48358
15°	46952	47517	47139	48928
20°	46811	47247	46909	49761
25°	46681	47081	46730	49941
30°	46438	47120	46385	43343
35°	45600	47321	45600	35615
40°	43958	46864	43779	31322
45°	41066	42352	40936	25898
50°	37680	22340	37185	21562
55°	32800	12915	31691	20045
60°	27994	12087	27083	19630
65°	25914	12367	25054	18602
70°	23783	12090	23117	14748
75°	21772	10886	21067	13344
80°	19368	9679	18317	13343
85°	14598	5206	13561	6780

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 42352 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.2	4.2
10°-20°	806.5	12.2
20°-30°	1232.3	18.7
30°-40°	1392.7	21.1
40°-50°	1217.4	18.4
50°-60°	805.5	12.2
60°-70°	526.3	8.0
70°-80°	275.4	4.2
80°-90°	65.0	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°	2317.9	35.1
0°-40°	3710.7	56.2
0°-60°	5733.5	86.9
0°-90°	6600.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6600.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2944	2944	2944	2944	2944	
5°	2890	2933	2913	2972	2890	275
15°	2809	2843	2820	2927	2809	793
25°	2620	2643	2623	2803	2620	1208
35°	2314	2401	2314	1807	2314	1442
45°	1798	1855	1793	1134	1798	1385
55°	1165	459	1126	712	1165	1046
65°	678	324	656	487	678	671
75°	349	174	338	214	349	371
85°	79	28	73	37	79	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2944.0	2944.0	2944.0	2944.0	2944.0	2944.0	2944.0	2944.0	2944.0	2944.0	2944.0
2.5°	2898.9	2972.1	2929.9	2927.1	2938.4	2941.2	2927.1	2958.1	2921.5	2960.9	2932.7
5°	2890.5	2963.7	2913.0	2907.4	2932.7	2924.3	2921.5	2949.6	2913.0	2944.0	2929.9
7.5°	2879.2	2946.8	2893.3	2890.5	2924.3	2913.0	2901.8	2935.5	2898.9	2932.7	2921.5
10°	2862.4	2921.5	2876.4	2879.2	2901.8	2890.5	2879.2	2907.4	2876.4	2918.6	2896.1
12.5°	2839.8	2898.9	2856.7	2848.3	2873.6	2853.9	2853.9	2876.4	2851.1	2896.1	2876.4
15°	2808.9	2868.0	2814.5	2820.1	2842.7	2823.0	2817.3	2845.5	2820.1	2865.2	2856.7
17.5°	2772.3	2823.0	2783.6	2786.4	2794.8	2786.4	2780.7	2803.3	2777.9	2825.8	2831.4
20°	2724.4	2783.6	2732.9	2732.9	2749.8	2727.3	2732.9	2752.6	2730.1	2786.4	2797.6
22.5°	2676.6	2732.9	2685.0	2685.0	2699.1	2668.2	2682.2	2696.3	2679.4	2741.3	2766.7
25°	2620.3	2665.3	2611.9	2628.8	2642.8	2614.7	2611.9	2634.4	2623.1	2685.0	2730.1
27.5°	2558.4	2597.8	2547.1	2569.7	2583.7	2564.0	2538.7	2566.8	2561.2	2631.6	2687.9
30°	2490.8	2527.4	2476.8	2507.7	2527.4	2499.3	2459.9	2485.2	2488.0	2569.7	2592.2
32.5°	2400.8	2437.4	2389.5	2440.2	2468.3	2428.9	2383.9	2398.0	2409.2	2490.8	2426.1
35°	2313.5	2330.4	2293.8	2358.6	2400.8	2352.9	2285.4	2302.3	2313.5	2406.4	2195.3
37.5°	2209.4	2209.4	2195.3	2265.7	2322.0	2251.6	2178.4	2186.9	2209.4	2288.2	1829.4
40°	2085.6	2068.7	2054.6	2147.5	2223.5	2130.6	2043.3	2046.2	2077.1	2096.8	1629.6
42.5°	1947.6	1927.9	1922.3	2020.8	2065.9	1989.9	1899.8	1902.6	1947.6	1832.2	1443.8
45°	1798.5	1790.0	1784.4	1851.9	1854.8	1806.9	1742.2	1756.3	1792.8	1581.8	1277.8
47.5°	1646.5	1640.9	1638.0	1584.6	1573.3	1539.5	1573.3	1604.3	1635.2	1320.0	1125.8
50°	1500.1	1460.7	1438.2	1241.2	889.4	1221.5	1384.7	1438.2	1480.4	1151.1	1013.2
52.5°	1339.7	1305.9	1235.6	948.5	562.9	942.9	1213.1	1280.6	1305.9	1047.0	928.8
55°	1165.2	1165.2	1013.2	607.9	458.8	638.9	996.3	1145.5	1125.8	937.2	833.1
57.5°	999.2	1032.9	841.5	408.1	405.3	408.1	835.9	1018.9	962.6	850.0	754.3
60°	866.9	917.5	729.0	363.1	374.3	357.4	714.9	906.3	838.7	757.1	667.0
62.5°	768.4	810.6	602.3	332.1	351.8	326.5	605.1	807.8	743.0	689.6	607.9
65°	678.3	720.5	475.7	304.0	323.7	298.3	489.7	714.9	655.8	613.6	554.5
67.5°	582.6	622.0	377.1	275.8	289.9	273.0	394.0	622.0	568.5	540.4	484.1
70°	503.8	548.8	287.1	247.7	256.1	244.9	306.8	537.6	489.7	478.5	413.7
72.5°	425.0	461.6	222.3	219.5	216.7	213.9	225.2	458.8	413.7	394.0	320.9
75°	349.0	374.3	182.9	182.9	174.5	177.3	182.9	374.3	337.7	320.9	228.0
77.5°	275.8	295.5	149.2	143.5	135.1	135.1	146.4	287.1	267.4	247.7	152.0
80°	208.3	213.9	112.6	107.0	104.1	104.1	112.6	208.3	197.0	177.3	118.2
82.5°	140.7	118.2	76.0	78.8	76.0	76.0	73.2	121.0	132.3	90.1	87.2
85°	78.8	53.5	47.8	36.6	28.1	31.0	45.0	50.7	73.2	47.8	56.3
87.5°	28.1	22.5	8.4	11.3	8.4	8.4	8.4	22.5	22.5	16.9	8.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2944.0	2944.0	2944.0	2944.0	2944.0	2944.0
2.5°	2935.5	2952.4	2949.6	2932.7	2969.3	2898.9
5°	2938.4	2972.1	2955.2	2938.4	2960.9	2890.5
7.5°	2924.3	2963.7	2944.0	2935.5	2958.1	2879.2
10°	2915.8	2949.6	2932.7	2921.5	2944.0	2862.4
12.5°	2907.4	2946.8	2924.3	2910.2	2924.3	2839.8
15°	2884.9	2927.1	2913.0	2890.5	2890.5	2808.9
17.5°	2868.0	2910.2	2896.1	2865.2	2851.1	2772.3
20°	2856.7	2896.1	2876.4	2831.4	2808.9	2724.4
22.5°	2831.4	2876.4	2845.5	2797.6	2766.7	2676.6
25°	2786.4	2803.3	2800.4	2758.2	2707.6	2620.3
27.5°	2668.2	2676.6	2685.0	2713.2	2656.9	2558.4
30°	2462.7	2324.8	2496.5	2623.1	2595.0	2490.8
32.5°	2074.3	2029.3	2130.6	2457.1	2513.4	2400.8
35°	1860.4	1806.9	1891.4	2254.4	2420.5	2313.5
37.5°	1666.2	1666.2	1688.7	1894.2	2316.3	2209.4
40°	1528.3	1486.1	1548.0	1660.6	2158.7	2085.6
42.5°	1305.9	1291.9	1331.3	1463.5	1919.5	1947.6
45°	1151.1	1134.2	1170.8	1297.5	1660.6	1798.5
47.5°	1032.9	971.0	1052.6	1156.8	1407.3	1646.5
50°	923.2	858.4	937.2	1027.3	1193.4	1500.1
52.5°	827.5	768.4	847.2	945.7	1083.6	1339.7
55°	729.0	712.1	748.7	852.8	976.6	1165.2
57.5°	647.3	653.0	658.6	771.2	878.1	999.2
60°	596.7	607.9	605.1	692.4	796.5	866.9
62.5°	546.0	551.6	551.6	622.0	717.7	768.4
65°	486.9	486.9	492.5	571.3	650.2	678.3
67.5°	422.2	410.9	430.6	503.8	577.0	582.6
70°	332.1	312.4	346.2	436.2	515.1	503.8
72.5°	239.2	250.5	244.9	343.4	441.9	425.0
75°	197.0	213.9	199.8	244.9	360.3	349.0
77.5°	166.1	180.1	166.1	157.6	289.9	275.8
80°	132.3	143.5	132.3	121.0	213.9	208.3
82.5°	95.7	98.5	95.7	90.1	140.7	140.7
85°	45.0	36.6	50.7	59.1	56.3	78.8
87.5°	8.4	8.4	8.4	11.3	31.0	28.1
90°	0.0	0.0	0.0	0.0	0.0	0.0



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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	23.64	25.13	24.01	25.44	25.76	21.14	22.63	21.51	22.94	23.26
	3H	25.28	26.61	25.66	26.94	27.30	22.63	23.96	23.00	24.28	24.65
	4H	25.88	27.13	26.28	27.48	27.85	23.08	24.32	23.48	24.67	25.05
	6H	26.31	27.46	26.72	27.83	28.22	23.46	24.62	23.88	24.98	25.37
	8H	26.44	27.53	26.86	27.92	28.32	23.58	24.68	24.01	25.07	25.47
	12H	26.50	27.55	26.93	27.93	28.36	23.62	24.67	24.05	25.05	25.48
4H	2H	23.91	25.16	24.31	25.51	25.88	21.95	23.20	22.35	23.55	23.93
	3H	25.81	26.84	26.22	27.24	27.64	23.60	24.63	24.01	25.03	25.43
	4H	26.55	27.48	26.99	27.90	28.33	24.11	25.03	24.54	25.45	25.89
	6H	27.14	27.94	27.60	28.39	28.85	24.58	25.38	25.04	25.83	26.29
	8H	27.31	28.06	27.78	28.51	28.98	24.73	25.48	25.19	25.92	26.39
	12H	27.41	28.08	27.89	28.56	29.03	24.79	25.46	25.27	25.94	26.41
8H	4H	26.62	27.37	27.08	27.82	28.29	24.42	25.17	24.88	25.61	26.08
	6H	27.31	27.93	27.81	28.42	28.90	24.97	25.59	25.46	26.08	26.56
	8H	27.55	28.10	28.06	28.61	29.10	25.17	25.72	25.68	26.24	26.72
	12H	27.69	28.19	28.20	28.68	29.24	25.28	25.77	25.79	26.26	26.83
12H	4H	26.60	27.28	27.09	27.75	28.23	24.45	25.12	24.93	25.60	26.07
	6H	27.29	27.85	27.81	28.36	28.85	25.01	25.57	25.53	26.08	26.57
	8H	27.57	28.06	28.08	28.55	29.12	25.26	25.75	25.77	26.25	26.81