

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: P845564

Luminaire Tested: SQ2R-PC3-125D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845564
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-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
1250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

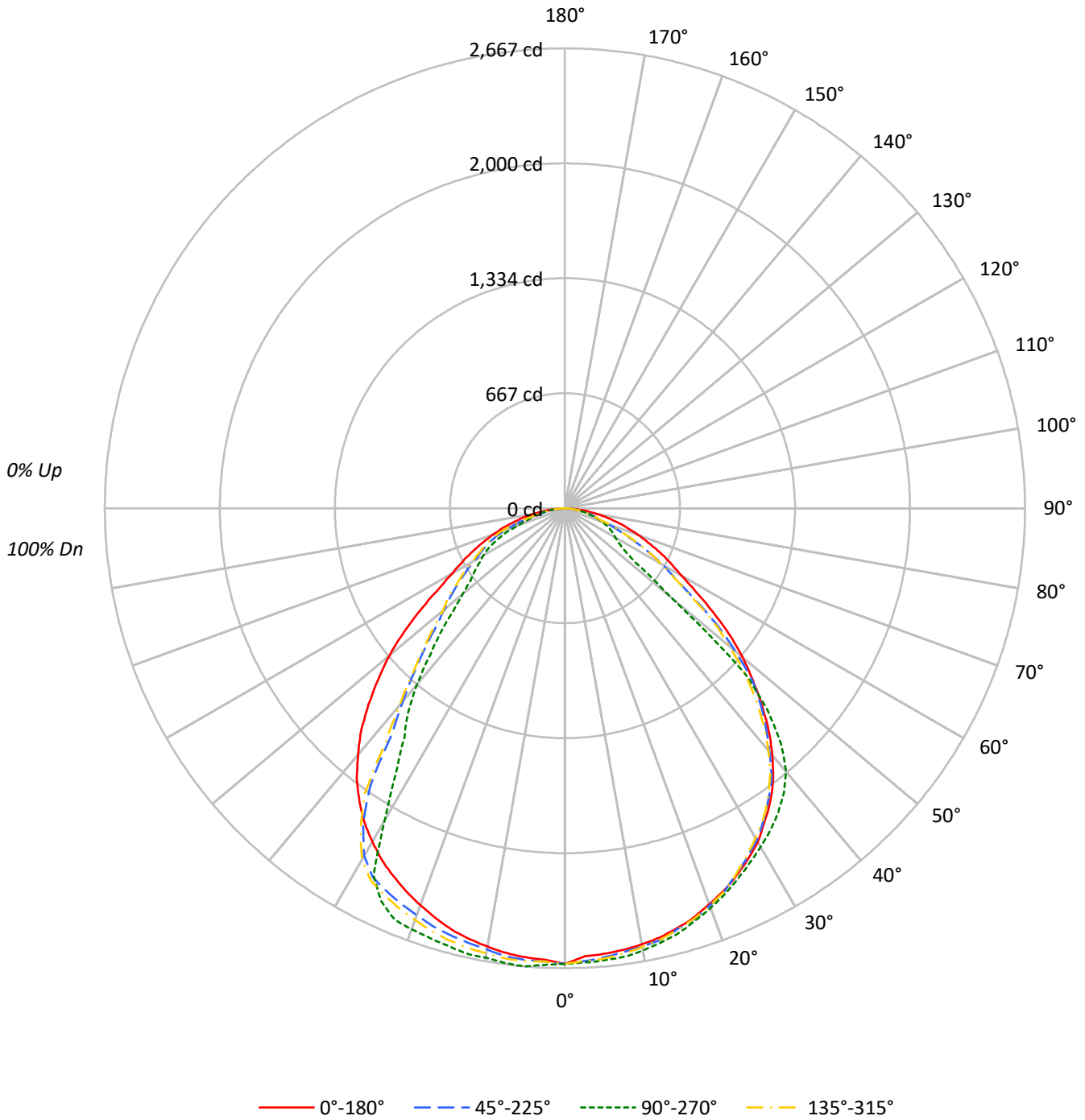
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5923.1 lumens
Efficiency: N/A
Efficacy: 120.4 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	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°	42657	42657	42657	42657
5°	42042	42657	42370	43229
10°	42114	42694	42322	43397
15°	42135	42641	42303	43908
20°	42010	42400	42096	44656
25°	41892	42252	41936	44817
30°	41674	42287	41627	38896
35°	40923	42466	40923	31962
40°	39448	42057	39287	28108
45°	36854	38007	36737	23242
50°	33814	20047	33372	19351
55°	29436	11589	28439	17987
60°	25120	10847	24306	17618
65°	23255	11098	22483	16695
70°	21342	10848	20748	13237
75°	19538	9769	18908	11977
80°	17378	8694	16439	11976
85°	13097	4687	12171	6076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 38007 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.5	4.2
10°-20°	723.7	12.2
20°-30°	1105.9	18.7
30°-40°	1249.9	21.1
40°-50°	1092.5	18.4
50°-60°	722.9	12.2
60°-70°	472.3	8.0
70°-80°	247.2	4.2
80°-90°	58.3	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°	2080.1	35.1
0°-40°	3330.0	56.2
0°-60°	5145.3	86.9
0°-90°	5923.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5923.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2642	2642	2642	2642	2642	
5°	2594	2632	2614	2667	2594	247
15°	2521	2551	2531	2627	2521	711
25°	2352	2372	2354	2516	2352	1084
35°	2076	2154	2076	1622	2076	1294
45°	1614	1664	1609	1018	1614	1243
55°	1046	412	1010	639	1046	939
65°	609	290	588	437	609	602
75°	313	157	303	192	313	333
85°	71	25	66	33	71	86
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°	2642.0	2642.0	2642.0	2642.0	2642.0	2642.0	2642.0	2642.0	2642.0	2642.0	2642.0
2.5°	2601.6	2667.2	2629.3	2626.8	2636.9	2639.4	2626.8	2654.6	2621.8	2657.1	2631.9
5°	2594.0	2659.7	2614.2	2609.1	2631.9	2624.3	2621.8	2647.0	2614.2	2642.0	2629.3
7.5°	2583.9	2644.5	2596.5	2594.0	2624.3	2614.2	2604.1	2634.4	2601.6	2631.9	2621.8
10°	2568.7	2621.8	2581.4	2583.9	2604.1	2594.0	2583.9	2609.1	2581.4	2619.2	2599.0
12.5°	2548.5	2601.6	2563.7	2556.1	2578.8	2561.1	2561.1	2581.4	2558.6	2599.0	2581.4
15°	2520.7	2573.8	2525.8	2530.8	2551.0	2533.4	2528.3	2553.6	2530.8	2571.3	2563.7
17.5°	2487.9	2533.4	2498.0	2500.5	2508.1	2500.5	2495.5	2515.7	2493.0	2535.9	2540.9
20°	2445.0	2498.0	2452.5	2452.5	2467.7	2447.5	2452.5	2470.2	2450.0	2500.5	2510.6
22.5°	2402.0	2452.5	2409.6	2409.6	2422.2	2394.4	2407.1	2419.7	2404.5	2460.1	2482.8
25°	2351.5	2391.9	2343.9	2359.1	2371.7	2346.5	2343.9	2364.1	2354.0	2409.6	2450.0
27.5°	2295.9	2331.3	2285.8	2306.0	2318.7	2301.0	2278.3	2303.5	2298.5	2361.6	2412.1
30°	2235.3	2268.2	2222.7	2250.5	2268.2	2242.9	2207.5	2230.3	2232.8	2306.0	2326.3
32.5°	2154.5	2187.3	2144.4	2189.9	2215.1	2179.8	2139.3	2152.0	2162.1	2235.3	2177.2
35°	2076.2	2091.4	2058.5	2116.6	2154.5	2111.6	2050.9	2066.1	2076.2	2159.5	1970.1
37.5°	1982.7	1982.7	1970.1	2033.3	2083.8	2020.6	1955.0	1962.5	1982.7	2053.5	1641.8
40°	1871.6	1856.5	1843.8	1927.2	1995.4	1912.0	1833.7	1836.2	1864.0	1881.7	1462.4
42.5°	1747.8	1730.2	1725.1	1813.5	1853.9	1785.7	1704.9	1707.4	1747.8	1644.3	1295.7
45°	1614.0	1606.4	1601.3	1662.0	1664.5	1621.6	1563.5	1576.1	1608.9	1419.5	1146.7
47.5°	1477.6	1472.5	1470.0	1422.0	1411.9	1381.6	1411.9	1439.7	1467.5	1184.6	1010.3
50°	1346.2	1310.9	1290.7	1113.9	798.1	1096.2	1242.7	1290.7	1328.6	1033.0	909.3
52.5°	1202.3	1172.0	1108.8	851.2	505.2	846.1	1088.6	1149.2	1172.0	939.6	833.5
55°	1045.7	1045.7	909.3	545.6	411.7	573.4	894.1	1028.0	1010.3	841.1	747.6
57.5°	896.7	927.0	755.2	366.2	363.7	366.2	750.2	914.3	863.8	762.8	676.9
60°	777.9	823.4	654.2	325.8	335.9	320.8	641.6	813.3	752.7	679.4	598.6
62.5°	689.5	727.4	540.5	298.0	315.7	293.0	543.0	724.9	666.8	618.8	545.6
65°	608.7	646.6	426.9	272.8	290.5	267.7	439.5	641.6	588.5	550.6	497.6
67.5°	522.8	558.2	338.5	247.5	260.2	245.0	353.6	558.2	510.2	485.0	434.4
70°	452.1	492.5	257.6	222.3	229.8	219.7	275.3	482.4	439.5	429.4	371.3
72.5°	381.4	414.2	199.5	197.0	194.5	192.0	202.1	411.7	371.3	353.6	287.9
75°	313.2	335.9	164.2	164.2	156.6	159.1	164.2	335.9	303.1	287.9	204.6
77.5°	247.5	265.2	133.9	128.8	121.2	121.2	131.3	257.6	239.9	222.3	136.4
80°	186.9	192.0	101.0	96.0	93.5	93.5	101.0	186.9	176.8	159.1	106.1
82.5°	126.3	106.1	68.2	70.7	68.2	68.2	65.7	108.6	118.7	80.8	78.3
85°	70.7	48.0	42.9	32.8	25.3	27.8	40.4	45.5	65.7	42.9	50.5
87.5°	25.3	20.2	7.6	10.1	7.6	7.6	7.6	20.2	20.2	15.2	7.6
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°	2642.0	2642.0	2642.0	2642.0	2642.0	2642.0
2.5°	2634.4	2649.6	2647.0	2631.9	2664.7	2601.6
5°	2636.9	2667.2	2652.1	2636.9	2657.1	2594.0
7.5°	2624.3	2659.7	2642.0	2634.4	2654.6	2583.9
10°	2616.7	2647.0	2631.9	2621.8	2642.0	2568.7
12.5°	2609.1	2644.5	2624.3	2611.7	2624.3	2548.5
15°	2588.9	2626.8	2614.2	2594.0	2594.0	2520.7
17.5°	2573.8	2611.7	2599.0	2571.3	2558.6	2487.9
20°	2563.7	2599.0	2581.4	2540.9	2520.7	2445.0
22.5°	2540.9	2581.4	2553.6	2510.6	2482.8	2402.0
25°	2500.5	2515.7	2513.2	2475.3	2429.8	2351.5
27.5°	2394.4	2402.0	2409.6	2434.9	2384.3	2295.9
30°	2210.1	2086.3	2240.4	2354.0	2328.8	2235.3
32.5°	1861.5	1821.1	1912.0	2205.0	2255.5	2154.5
35°	1669.5	1621.6	1697.3	2023.2	2172.2	2076.2
37.5°	1495.3	1495.3	1515.5	1699.9	2078.7	1982.7
40°	1371.5	1333.6	1389.2	1490.2	1937.3	1871.6
42.5°	1172.0	1159.3	1194.7	1313.4	1722.6	1747.8
45°	1033.0	1017.9	1050.7	1164.4	1490.2	1614.0
47.5°	927.0	871.4	944.6	1038.1	1262.9	1477.6
50°	828.5	770.4	841.1	921.9	1070.9	1346.2
52.5°	742.6	689.5	760.3	848.7	972.4	1202.3
55°	654.2	639.0	671.9	765.3	876.4	1045.7
57.5°	580.9	586.0	591.0	692.1	788.0	896.7
60°	535.5	545.6	543.0	621.3	714.8	777.9
62.5°	490.0	495.1	495.1	558.2	644.1	689.5
65°	437.0	437.0	442.0	512.7	583.5	608.7
67.5°	378.9	368.8	386.4	452.1	517.8	522.8
70°	298.0	280.4	310.7	391.5	462.2	452.1
72.5°	214.7	224.8	219.7	308.1	396.5	381.4
75°	176.8	192.0	179.3	219.7	323.3	313.2
77.5°	149.0	161.7	149.0	141.4	260.2	247.5
80°	118.7	128.8	118.7	108.6	192.0	186.9
82.5°	85.9	88.4	85.9	80.8	126.3	126.3
85°	40.4	32.8	45.5	53.0	50.5	70.7
87.5°	7.6	7.6	7.6	10.1	27.8	25.3
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	23.26	24.75	23.63	25.07	25.38	20.77	22.25	21.13	22.57	22.88
	3H	24.90	26.23	25.28	26.56	26.92	22.25	23.58	22.63	23.91	24.27
	4H	25.50	26.75	25.90	27.10	27.48	22.70	23.95	23.10	24.30	24.67
	6H	25.93	27.08	26.35	27.45	27.84	23.09	24.24	23.50	24.61	25.00
	8H	26.06	27.15	26.49	27.54	27.95	23.21	24.30	23.64	24.69	25.09
	12H	26.12	27.17	26.55	27.55	27.98	23.25	24.29	23.68	24.68	25.11
4H	2H	23.53	24.78	23.93	25.13	25.51	21.58	22.82	21.98	23.17	23.55
	3H	25.43	26.46	25.84	26.86	27.26	23.22	24.25	23.63	24.65	25.05
	4H	26.18	27.10	26.61	27.52	27.96	23.73	24.66	24.16	25.07	25.51
	6H	26.76	27.57	27.22	28.01	28.47	24.20	25.01	24.66	25.45	25.91
	8H	26.94	27.69	27.40	28.13	28.60	24.35	25.10	24.82	25.55	26.02
	12H	27.03	27.70	27.52	28.18	28.65	24.41	25.08	24.90	25.56	26.04
8H	4H	26.24	27.00	26.71	27.44	27.91	24.04	24.79	24.50	25.24	25.70
	6H	26.93	27.55	27.43	28.05	28.52	24.59	25.21	25.09	25.70	26.18
	8H	27.17	27.73	27.68	28.24	28.73	24.79	25.35	25.31	25.86	26.35
	12H	27.32	27.81	27.83	28.30	28.87	24.90	25.39	25.41	25.89	26.45
12H	4H	26.23	26.90	26.71	27.38	27.85	24.08	24.75	24.56	25.23	25.70
	6H	26.91	27.47	27.43	27.98	28.47	24.64	25.19	25.15	25.70	26.19
	8H	27.19	27.69	27.70	28.18	28.74	24.88	25.38	25.39	25.87	26.44