

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: P845631

Luminaire Tested: SQ2R-PR1-125D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845631
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PR1-125D-830-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS
1250 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

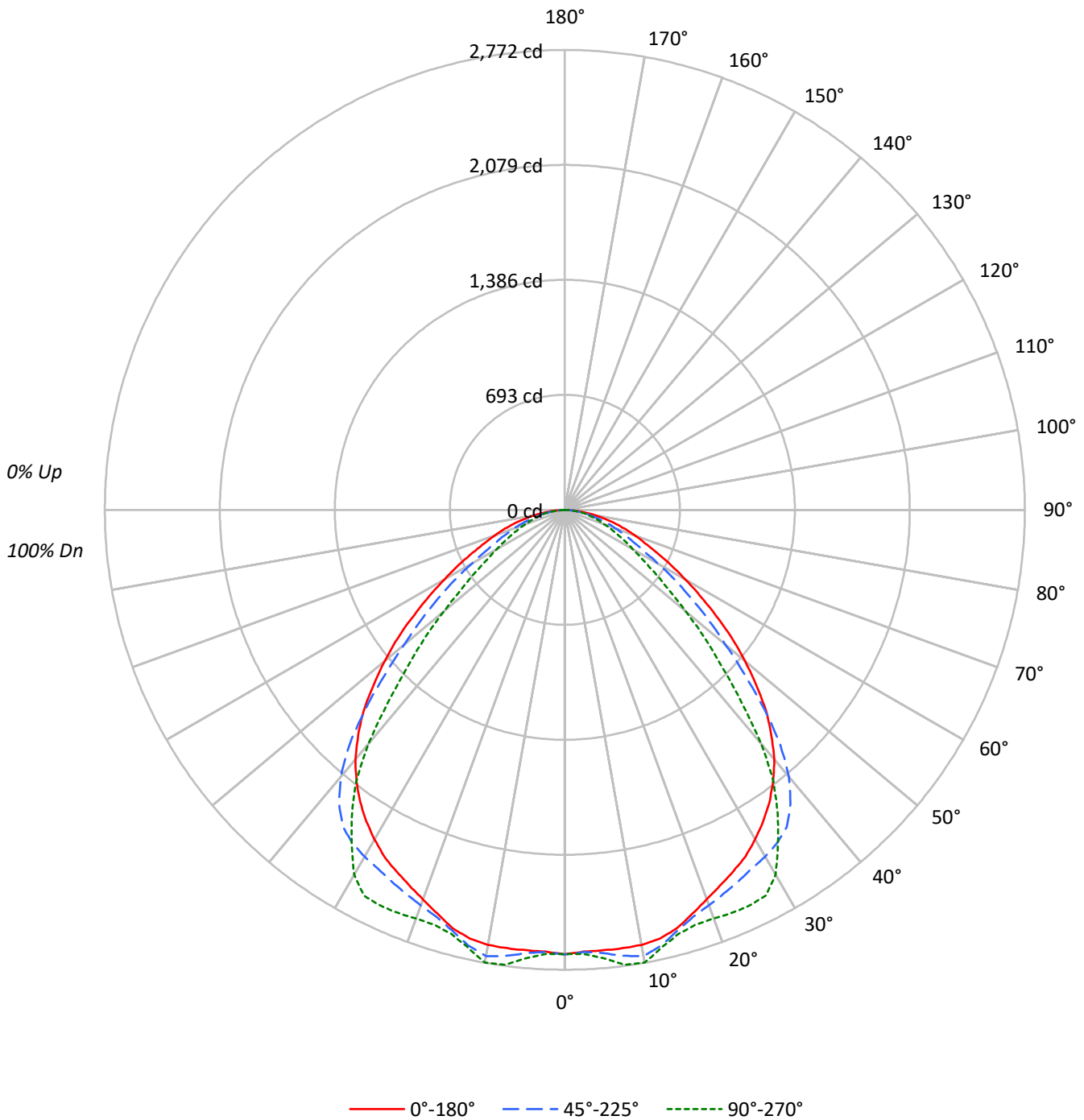
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6444.6 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.33 / 1.36
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	101	97	100	97	94	96	94	92	92	91	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	82	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	62	58				56	
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52				50	
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46				44	
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	45	41				39	
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37				35	
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34				32	
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31				29	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	43250	43250	43250
5°	43193	43459	43990
10°	43648	44768	45439
15°	43634	43863	44227
20°	42929	43586	45039
25°	42808	44024	46894
30°	42763	45002	47344
35°	42358	45963	44078
40°	41380	44257	38790
45°	39155	38842	30675
50°	35598	31757	23800
55°	31282	26134	18525
60°	27070	20896	15255
65°	23366	17318	13352
70°	21012	15338	11858
75°	19251	13288	10905
80°	16755	10665	10665
85°	12134	9615	5057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 42398 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.6	4.0
10°-20°	749.1	11.6
20°-30°	1158.4	18.0
30°-40°	1394.9	21.6
40°-50°	1252.2	19.4
50°-60°	836.0	13.0
60°-70°	485.6	7.5
70°-80°	249.7	3.9
80°-90°	60.0	0.9
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°	2166.2	33.6
0°-40°	3561.1	55.3
0°-60°	5649.3	87.7
0°-90°	6444.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6444.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2679	2679	2679	2679	2679	
5°	2665	2712	2681	2687	2714	254
15°	2610	2720	2624	2632	2646	734
25°	2403	2501	2471	2561	2632	1109
35°	2149	2168	2332	2288	2236	1341
45°	1715	1857	1701	1436	1343	1313
55°	1111	1155	928	718	658	998
65°	612	625	453	369	350	617
75°	309	300	213	180	175	327
85°	66	52	52	36	27	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2678.7	2678.7	2678.7	2678.7	2678.7
2.5°	2665.0	2706.0	2667.8	2670.5	2678.7
5°	2665.0	2711.5	2681.4	2686.9	2714.2
7.5°	2665.0	2727.8	2711.5	2730.6	2766.1
10°	2662.3	2741.5	2730.6	2733.3	2771.5
12.5°	2645.9	2741.5	2689.6	2684.1	2700.5
15°	2610.4	2719.6	2624.1	2632.3	2645.9
17.5°	2553.1	2667.8	2572.2	2599.5	2621.3
20°	2498.5	2610.4	2536.7	2574.9	2621.3
22.5°	2449.3	2561.3	2503.9	2561.3	2629.5
25°	2402.9	2501.2	2471.2	2561.3	2632.3
27.5°	2356.5	2419.3	2438.4	2564.0	2621.3
30°	2293.7	2331.9	2413.8	2520.3	2539.4
32.5°	2225.4	2244.5	2381.1	2424.7	2389.2
35°	2149.0	2168.1	2331.9	2288.2	2236.3
37.5°	2061.6	2094.3	2233.6	2121.7	2064.3
40°	1963.3	2028.8	2099.8	1908.7	1840.4
42.5°	1843.1	1957.8	1922.3	1665.6	1578.3
45°	1714.8	1856.8	1701.1	1436.3	1343.4
47.5°	1564.6	1717.5	1469.0	1228.8	1144.1
50°	1417.2	1534.6	1264.3	1043.1	947.5
52.5°	1267.0	1343.4	1089.5	868.3	783.7
55°	1111.3	1155.0	928.4	718.1	658.1
57.5°	966.6	996.7	786.4	598.0	551.6
60°	838.3	857.4	647.1	507.9	472.4
62.5°	720.9	734.5	535.2	431.4	406.9
65°	611.6	625.3	453.3	368.6	349.5
67.5°	521.5	529.7	385.0	316.7	297.6
70°	445.1	447.8	324.9	264.9	251.2
72.5°	376.8	371.4	267.6	221.2	213.0
75°	308.6	300.4	213.0	180.2	174.8
77.5°	243.0	234.8	158.4	144.7	144.7
80°	180.2	169.3	114.7	114.7	114.7
82.5°	122.9	106.5	81.9	81.9	79.2
85°	65.5	51.9	51.9	35.5	27.3
87.5°	21.8	21.8	8.2	8.2	8.2
90°	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	23.79	25.29	24.16	25.60	25.92	20.52	22.02	20.89	22.33	22.65
	3H	25.07	26.41	25.45	26.74	27.10	21.64	22.97	22.01	23.30	23.66
	4H	25.55	26.81	25.95	27.15	27.53	22.06	23.31	22.46	23.66	24.04
	6H	25.90	27.05	26.31	27.42	27.81	22.42	23.58	22.84	23.95	24.34
	8H	26.00	27.10	26.43	27.49	27.89	22.53	23.62	22.95	24.01	24.42
	12H	26.05	27.10	26.48	27.48	27.91	22.55	23.60	22.98	23.99	24.42
4H	2H	23.95	25.20	24.35	25.55	25.93	21.17	22.42	21.57	22.77	23.15
	3H	25.47	26.51	25.89	26.91	27.31	22.49	23.52	22.90	23.92	24.32
	4H	26.09	27.02	26.53	27.44	27.88	23.02	23.94	23.45	24.36	24.80
	6H	26.58	27.38	27.03	27.82	28.29	23.48	24.29	23.94	24.73	25.19
	8H	26.72	27.47	27.18	27.92	28.38	23.62	24.37	24.08	24.81	25.28
	12H	26.80	27.47	27.28	27.95	28.42	23.67	24.34	24.15	24.82	25.29
8H	4H	26.16	26.91	26.62	27.36	27.83	23.36	24.12	23.83	24.56	25.03
	6H	26.73	27.35	27.23	27.84	28.32	23.92	24.54	24.42	25.03	25.51
	8H	26.93	27.48	27.44	28.00	28.48	24.10	24.66	24.62	25.17	25.66
	12H	27.05	27.55	27.57	28.04	28.61	24.19	24.69	24.70	25.18	25.75
12H	4H	26.15	26.82	26.63	27.30	27.77	23.41	24.08	23.89	24.56	25.03
	6H	26.71	27.27	27.23	27.78	28.27	23.98	24.54	24.49	25.05	25.54
	8H	26.95	27.45	27.46	27.94	28.50	24.21	24.71	24.72	25.20	25.77