

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: P845633

Luminaire Tested: SQ2R-PR1-125D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845633
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-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS
1250 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

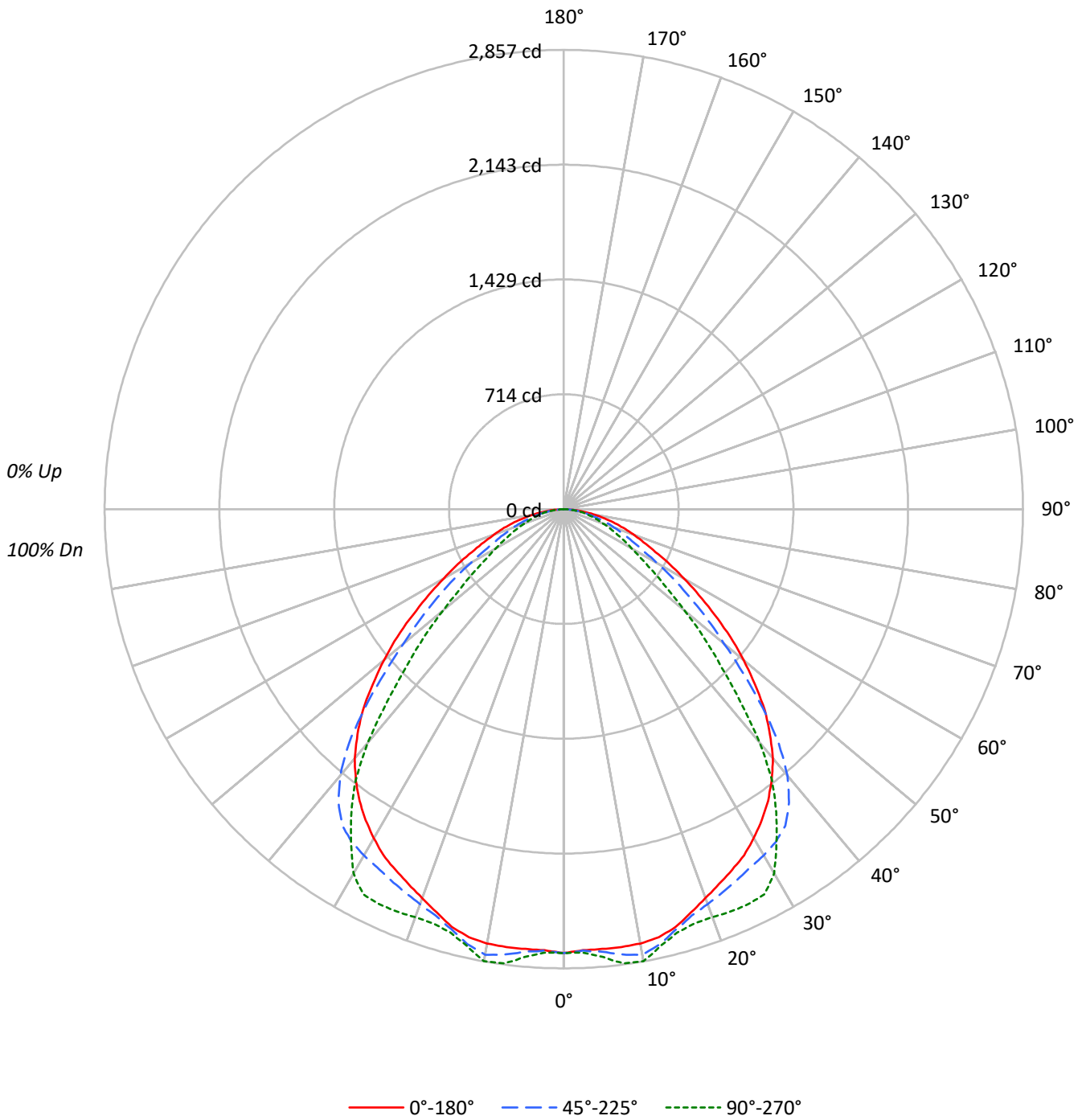
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6642.7 lumens
Efficiency: N/A
Efficacy: 135.0 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				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	82	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	62	58	56				56
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44				44
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	45	41	39				39
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37	35				35
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32				32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29				29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	44579	44579	44579
5°	44522	44794	45342
10°	44989	46143	46835
15°	44976	45210	45588
20°	44249	44926	46424
25°	44124	45376	48336
30°	44077	46385	48800
35°	43659	47376	45435
40°	42651	45619	39983
45°	40359	40037	31618
50°	36691	32732	24531
55°	32245	26936	19094
60°	27903	21539	15723
65°	24088	17849	13765
70°	21659	15810	12222
75°	19838	13693	11235
80°	17276	10990	10990
85°	12505	9911	5206

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 43701 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.6	4.0
10°-20°	772.2	11.6
20°-30°	1194.1	18.0
30°-40°	1437.8	21.6
40°-50°	1290.7	19.4
50°-60°	861.7	13.0
60°-70°	500.6	7.5
70°-80°	257.3	3.9
80°-90°	61.9	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°	2232.8	33.6
0°-40°	3670.6	55.3
0°-60°	5823.0	87.7
0°-90°	6642.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6642.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2761	2761	2761	2761	2761	
5°	2747	2795	2764	2770	2798	262
15°	2691	2803	2705	2713	2727	756
25°	2477	2578	2547	2640	2713	1143
35°	2215	2235	2404	2359	2305	1382
45°	1768	1914	1753	1480	1385	1354
55°	1146	1190	957	740	678	1029
65°	630	644	467	380	360	636
75°	318	310	220	186	180	337
85°	68	54	54	37	28	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2761.0	2761.0	2761.0	2761.0	2761.0
2.5°	2747.0	2789.2	2749.8	2752.6	2761.0
5°	2747.0	2794.8	2763.8	2769.5	2797.6
7.5°	2747.0	2811.7	2794.8	2814.5	2851.1
10°	2744.1	2825.8	2814.5	2817.3	2856.7
12.5°	2727.3	2825.8	2772.3	2766.7	2783.6
15°	2690.7	2803.3	2704.7	2713.2	2727.3
17.5°	2631.6	2749.8	2651.3	2679.4	2701.9
20°	2575.3	2690.7	2614.7	2654.1	2701.9
22.5°	2524.6	2640.0	2580.9	2640.0	2710.4
25°	2476.8	2578.1	2547.1	2640.0	2713.2
27.5°	2428.9	2493.7	2513.4	2642.8	2701.9
30°	2364.2	2403.6	2488.0	2597.8	2617.5
32.5°	2293.8	2313.5	2454.3	2499.3	2462.7
35°	2215.0	2234.7	2403.6	2358.6	2305.1
37.5°	2125.0	2158.7	2302.3	2186.9	2127.8
40°	2023.6	2091.2	2164.4	1967.3	1897.0
42.5°	1899.8	2018.0	1981.4	1716.9	1626.8
45°	1767.5	1913.9	1753.4	1480.4	1384.7
47.5°	1612.7	1770.3	1514.2	1266.5	1179.3
50°	1460.7	1581.8	1303.1	1075.1	976.6
52.5°	1305.9	1384.7	1123.0	895.0	807.8
55°	1145.5	1190.5	956.9	740.2	678.3
57.5°	996.3	1027.3	810.6	616.4	568.5
60°	864.1	883.8	667.0	523.5	486.9
62.5°	743.0	757.1	551.6	444.7	419.4
65°	630.5	644.5	467.2	380.0	360.3
67.5°	537.6	546.0	396.8	326.5	306.8
70°	458.8	461.6	334.9	273.0	258.9
72.5°	388.4	382.8	275.8	228.0	219.5
75°	318.0	309.6	219.5	185.8	180.1
77.5°	250.5	242.0	163.2	149.2	149.2
80°	185.8	174.5	118.2	118.2	118.2
82.5°	126.7	109.8	84.4	84.4	81.6
85°	67.5	53.5	53.5	36.6	28.1
87.5°	22.5	22.5	8.4	8.4	8.4
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	23.90	25.40	24.27	25.71	26.02	20.63	22.12	20.99	22.44	22.75
	3H	25.18	26.52	25.56	26.84	27.21	21.74	23.08	22.12	23.41	23.77
	4H	25.66	26.91	26.06	27.26	27.64	22.17	23.42	22.57	23.77	24.15
	6H	26.01	27.16	26.42	27.53	27.92	22.53	23.68	22.94	24.05	24.44
	8H	26.11	27.20	26.53	27.59	27.99	22.63	23.73	23.06	24.12	24.52
	12H	26.15	27.20	26.58	27.59	28.01	22.66	23.71	23.09	24.09	24.52
4H	2H	24.05	25.30	24.45	25.65	26.03	21.27	22.52	21.67	22.87	23.25
	3H	25.58	26.61	25.99	27.01	27.42	22.59	23.63	23.00	24.03	24.43
	4H	26.20	27.12	26.63	27.54	27.98	23.12	24.05	23.56	24.47	24.91
	6H	26.68	27.49	27.14	27.93	28.39	23.59	24.39	24.05	24.84	25.30
	8H	26.82	27.58	27.29	28.02	28.49	23.72	24.47	24.19	24.92	25.39
	12H	26.90	27.58	27.39	28.05	28.53	23.77	24.44	24.25	24.92	25.39
8H	4H	26.27	27.02	26.73	27.46	27.93	23.47	24.22	23.93	24.67	25.13
	6H	26.83	27.45	27.33	27.95	28.43	24.02	24.65	24.52	25.14	25.62
	8H	27.03	27.59	27.55	28.10	28.59	24.21	24.77	24.72	25.28	25.77
	12H	27.16	27.66	27.67	28.15	28.71	24.30	24.79	24.81	25.29	25.85
12H	4H	26.25	26.92	26.73	27.40	27.87	23.51	24.18	24.00	24.66	25.13
	6H	26.82	27.38	27.33	27.89	28.38	24.08	24.64	24.60	25.15	25.64
	8H	27.06	27.55	27.57	28.04	28.61	24.32	24.81	24.83	25.30	25.87