

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: P845616

Luminaire Tested: SQ2R-PR1-050D-930-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845616
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-PR1-050D-930-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

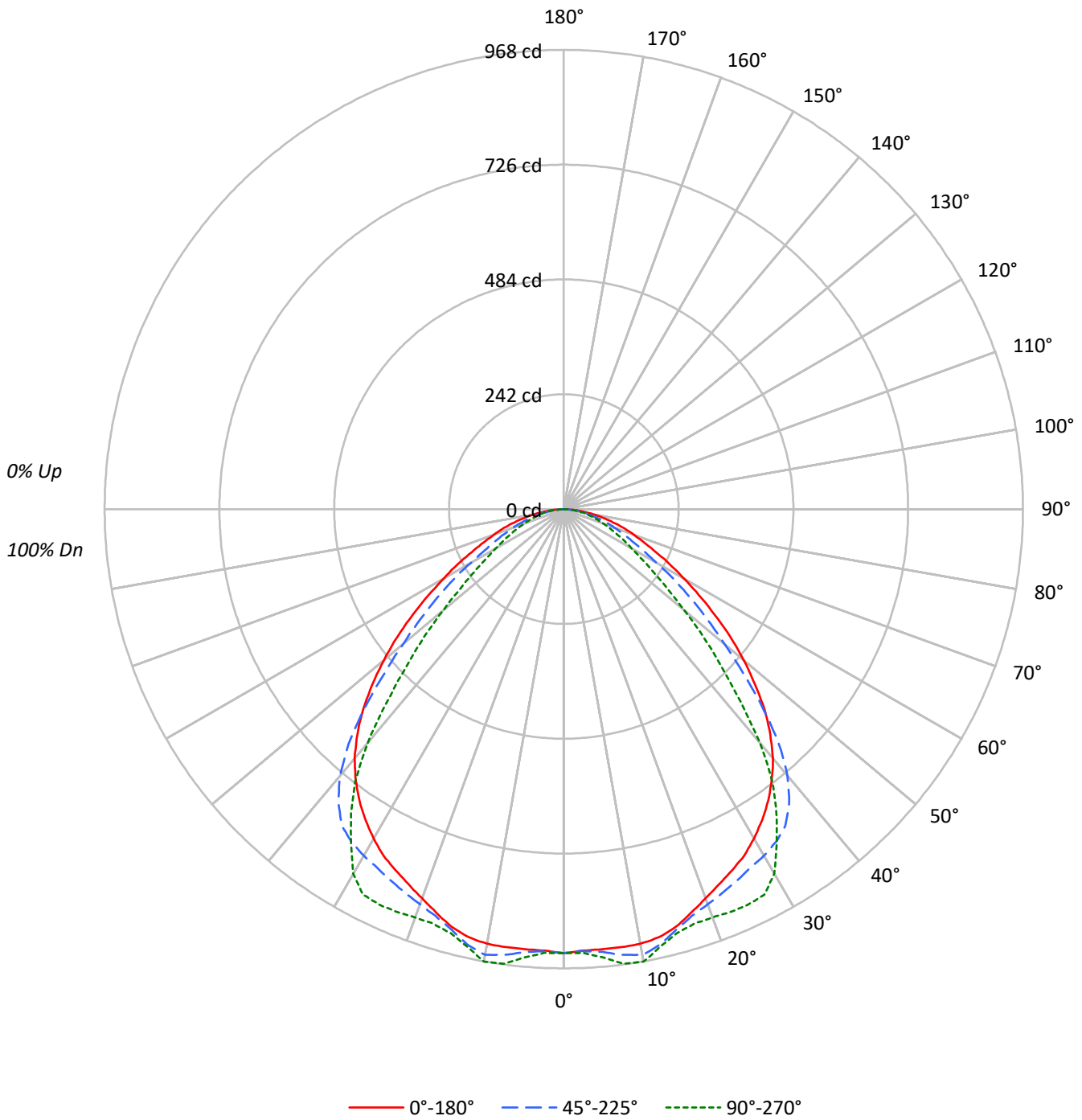
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2252.1 lumens
Efficiency: N/A
Efficacy: 126.5 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): 17.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9973
Total Harmonic Distortion (THDi): 0.0531
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°	15114	15114	15114
5°	15094	15186	15373
10°	15254	15644	15878
15°	15248	15328	15455
20°	15002	15232	15739
25°	14959	15385	16388
30°	14943	15726	16544
35°	14803	16062	15404
40°	14461	15466	13555
45°	13682	13575	10720
50°	12439	11097	8317
55°	10933	9132	6474
60°	9458	7301	5331
65°	8164	6052	4665
70°	7341	5363	4145
75°	6725	4641	3812
80°	5858	3729	3729
85°	4242	3353	1760

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 14817 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	4.0
10°-20°	261.8	11.6
20°-30°	404.8	18.0
30°-40°	487.5	21.6
40°-50°	437.6	19.4
50°-60°	292.1	13.0
60°-70°	169.7	7.5
70°-80°	87.3	3.9
80°-90°	21.0	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°	757.0	33.6
0°-40°	1244.4	55.3
0°-60°	1974.2	87.7
0°-90°	2252.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2252.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	936	936	936	936	936	
5°	931	948	937	939	948	89
15°	912	950	917	920	925	256
25°	840	874	864	895	920	387
35°	751	758	815	800	782	469
45°	599	649	594	502	470	459
55°	388	404	324	251	230	349
65°	214	218	158	129	122	216
75°	108	105	74	63	61	114
85°	23	18	18	12	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	936.1	936.1	936.1	936.1	936.1
2.5°	931.3	945.6	932.3	933.2	936.1
5°	931.3	947.5	937.0	938.9	948.5
7.5°	931.3	953.3	947.5	954.2	966.6
10°	930.4	958.0	954.2	955.2	968.5
12.5°	924.6	958.0	939.9	938.0	943.7
15°	912.2	950.4	917.0	919.9	924.6
17.5°	892.2	932.3	898.9	908.4	916.0
20°	873.1	912.2	886.5	899.8	916.0
22.5°	855.9	895.0	875.0	895.0	918.9
25°	839.7	874.1	863.6	895.0	919.9
27.5°	823.5	845.4	852.1	896.0	916.0
30°	801.5	814.9	843.5	880.7	887.4
32.5°	777.7	784.4	832.1	847.3	834.9
35°	751.0	757.6	814.9	799.6	781.5
37.5°	720.4	731.9	780.5	741.4	721.4
40°	686.1	709.0	733.8	667.0	643.1
42.5°	644.1	684.2	671.8	582.1	551.5
45°	599.2	648.9	594.5	501.9	469.5
47.5°	546.8	600.2	513.4	429.4	399.8
50°	495.2	536.3	441.8	364.5	331.1
52.5°	442.8	469.5	380.7	303.4	273.9
55°	388.4	403.6	324.4	251.0	230.0
57.5°	337.8	348.3	274.8	209.0	192.7
60°	292.9	299.6	226.1	177.5	165.1
62.5°	251.9	256.7	187.0	150.8	142.2
65°	213.7	218.5	158.4	128.8	122.1
67.5°	182.3	185.1	134.5	110.7	104.0
70°	155.5	156.5	113.6	92.6	87.8
72.5°	131.7	129.8	93.5	77.3	74.4
75°	107.8	105.0	74.4	63.0	61.1
77.5°	84.9	82.1	55.3	50.6	50.6
80°	63.0	59.2	40.1	40.1	40.1
82.5°	42.9	37.2	28.6	28.6	27.7
85°	22.9	18.1	18.1	12.4	9.5
87.5°	7.6	7.6	2.9	2.9	2.9
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	20.14	21.64	20.51	21.95	22.26	16.87	18.37	17.24	18.68	19.00
	3H	21.42	22.76	21.80	23.09	23.45	17.98	19.32	18.36	19.65	20.01
	4H	21.90	23.15	22.30	23.50	23.88	18.41	19.66	18.81	20.01	20.39
	6H	22.25	23.40	22.66	23.77	24.16	18.77	19.93	19.19	20.29	20.69
	8H	22.35	23.44	22.77	23.83	24.24	18.87	19.97	19.30	20.36	20.76
	12H	22.39	23.45	22.83	23.83	24.26	18.90	19.95	19.33	20.33	20.76
4H	2H	20.29	21.55	20.69	21.89	22.27	17.51	18.77	17.91	19.11	19.49
	3H	21.82	22.85	22.23	23.26	23.66	18.84	19.87	19.25	20.27	20.67
	4H	22.44	23.37	22.87	23.78	24.22	19.37	20.29	19.80	20.71	21.15
	6H	22.92	23.73	23.38	24.17	24.63	19.83	20.64	20.29	21.08	21.54
	8H	23.07	23.82	23.53	24.26	24.73	19.97	20.72	20.43	21.16	21.63
	12H	23.15	23.82	23.63	24.30	24.77	20.01	20.68	20.50	21.16	21.64
8H	4H	22.51	23.26	22.97	23.70	24.17	19.71	20.46	20.18	20.91	21.38
	6H	23.08	23.70	23.57	24.19	24.67	20.27	20.89	20.77	21.38	21.86
	8H	23.27	23.83	23.79	24.34	24.83	20.45	21.01	20.97	21.52	22.01
	12H	23.40	23.90	23.91	24.39	24.96	20.54	21.04	21.05	21.53	22.09
12H	4H	22.49	23.16	22.98	23.64	24.11	19.76	20.43	20.24	20.91	21.38
	6H	23.06	23.62	23.58	24.13	24.62	20.33	20.89	20.84	21.40	21.89
	8H	23.30	23.79	23.81	24.29	24.85	20.56	21.06	21.07	21.55	22.11