

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: P845594

Luminaire Tested: SQ2R-PP3-050D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845594
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PP3-050D-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PRISM CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

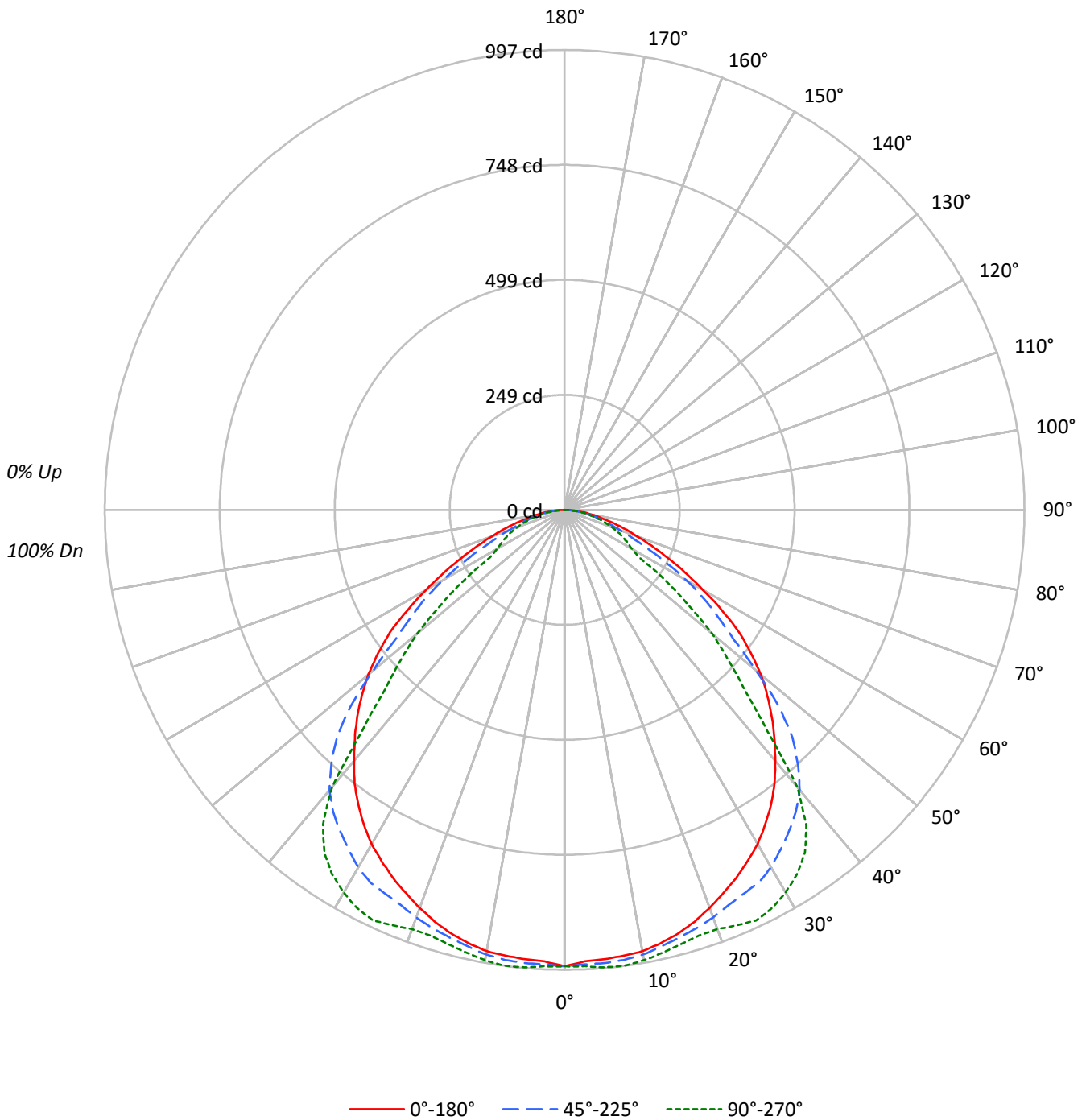
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2492.1 lumens
Efficiency: N/A
Efficacy: 140.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.41 / 1.4
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	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	107	104	100	97	99	97	94	96	93	91	92	90	89	87
2	101	94	88	82	99	92	86	82	88	84	80	85	81	78	82	79	76	74
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	61	57	55
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15975	15975	15975
5°	15849	15984	16136
10°	15929	16049	16256
15°	15891	16048	16293
20°	15778	16155	16622
25°	15688	16359	17496
30°	15599	16690	17861
35°	15378	16738	17893
40°	14967	16710	16533
45°	14520	15952	12586
50°	13948	13607	10482
55°	12983	11451	7536
60°	11179	9826	5402
65°	9429	7591	5314
70°	7851	5972	5084
75°	6656	5153	4760
80°	5644	4472	4277
85°	4465	3687	2334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15952 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.2	3.8
10°-20°	272.7	10.9
20°-30°	427.4	17.2
30°-40°	527.8	21.2
40°-50°	496.8	19.9
50°-60°	351.2	14.1
60°-70°	199.5	8.0
70°-80°	98.8	4.0
80°-90°	23.6	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°	794.4	31.9
0°-40°	1322.1	53.1
0°-60°	2170.2	87.1
0°-90°	2492.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2492.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	989	989	989	989	989	
5°	978	996	986	988	996	93
15°	951	964	960	970	975	268
25°	881	904	918	955	982	406
35°	780	802	849	897	908	487
45°	636	685	699	593	551	490
55°	461	490	407	308	268	408
65°	247	260	199	140	139	247
75°	107	118	83	77	76	115
85°	24	22	20	16	13	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	989.4	989.4	989.4	989.4	989.4
2.5°	980.0	997.7	986.2	988.3	990.4
5°	977.9	995.6	986.2	988.3	995.6
7.5°	974.7	993.6	984.1	987.3	996.7
10°	971.6	987.3	978.9	984.1	991.5
12.5°	962.2	976.8	969.5	976.8	983.1
15°	950.7	964.3	960.1	969.5	974.7
17.5°	936.0	951.7	950.7	963.2	967.4
20°	918.3	938.1	940.2	957.0	967.4
22.5°	899.4	923.5	927.7	954.9	974.7
25°	880.6	903.6	918.3	954.9	982.1
27.5°	858.6	881.6	910.9	951.7	973.7
30°	836.7	858.6	895.2	938.1	958.0
32.5°	809.5	832.5	872.2	919.3	937.1
35°	780.2	802.2	849.2	897.3	907.8
37.5°	747.8	770.8	824.1	856.5	860.7
40°	710.1	742.6	792.8	798.0	784.4
42.5°	673.5	717.5	748.8	721.6	649.5
45°	635.9	685.0	698.6	593.0	551.2
47.5°	596.1	645.3	629.6	510.4	481.1
50°	555.3	601.4	541.7	444.5	417.3
52.5°	509.3	549.1	463.3	381.7	336.8
55°	461.2	489.5	406.8	307.5	267.7
57.5°	403.7	424.6	358.7	241.6	191.4
60°	346.2	361.9	304.3	189.3	167.3
62.5°	293.9	307.5	247.9	157.9	153.7
65°	246.8	260.4	198.7	140.1	139.1
67.5°	203.9	218.6	159.0	125.5	124.5
70°	166.3	182.0	126.5	109.8	107.7
72.5°	134.9	149.6	102.5	93.1	92.0
75°	106.7	118.2	82.6	77.4	76.3
77.5°	81.6	89.9	64.8	61.7	60.7
80°	60.7	63.8	48.1	47.1	46.0
82.5°	41.8	39.7	33.5	32.4	30.3
85°	24.1	22.0	19.9	15.7	12.6
87.5°	9.4	9.4	4.2	3.1	3.1
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	21.07	22.60	21.44	22.91	23.23	17.48	19.00	17.84	19.31	19.63
	3H	22.22	23.58	22.60	23.91	24.27	18.63	19.99	19.01	20.32	20.68
	4H	22.59	23.87	22.99	24.22	24.60	19.12	20.39	19.52	20.74	21.12
	6H	22.84	24.02	23.25	24.38	24.77	19.50	20.67	19.91	21.04	21.43
	8H	22.91	24.03	23.33	24.42	24.82	19.60	20.72	20.03	21.11	21.51
	12H	22.94	24.01	23.37	24.39	24.82	19.63	20.71	20.06	21.09	21.52
4H	2H	21.26	22.54	21.66	22.89	23.27	18.27	19.54	18.67	19.89	20.27
	3H	22.63	23.68	23.04	24.08	24.49	19.58	20.63	19.99	21.03	21.43
	4H	23.13	24.08	23.56	24.49	24.93	20.15	21.10	20.59	21.52	21.95
	6H	23.50	24.32	23.96	24.77	25.23	20.63	21.45	21.09	21.89	22.35
	8H	23.61	24.38	24.07	24.82	25.29	20.76	21.53	21.22	21.97	22.44
	12H	23.67	24.36	24.16	24.84	25.31	20.82	21.50	21.30	21.98	22.45
8H	4H	23.19	23.96	23.66	24.41	24.87	20.47	21.24	20.94	21.68	22.15
	6H	23.65	24.28	24.14	24.77	25.25	21.04	21.67	21.54	22.17	22.64
	8H	23.80	24.38	24.32	24.89	25.37	21.23	21.80	21.74	22.31	22.80
	12H	23.92	24.42	24.43	24.92	25.48	21.33	21.83	21.84	22.33	22.89
12H	4H	23.18	23.87	23.66	24.35	24.82	20.51	21.19	20.99	21.67	22.14
	6H	23.64	24.21	24.15	24.72	25.21	21.09	21.66	21.61	22.17	22.66
	8H	23.83	24.34	24.34	24.83	25.40	21.33	21.83	21.84	22.33	22.89