

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: P845618

Luminaire Tested: SQ2R-PR1-050D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845618
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-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

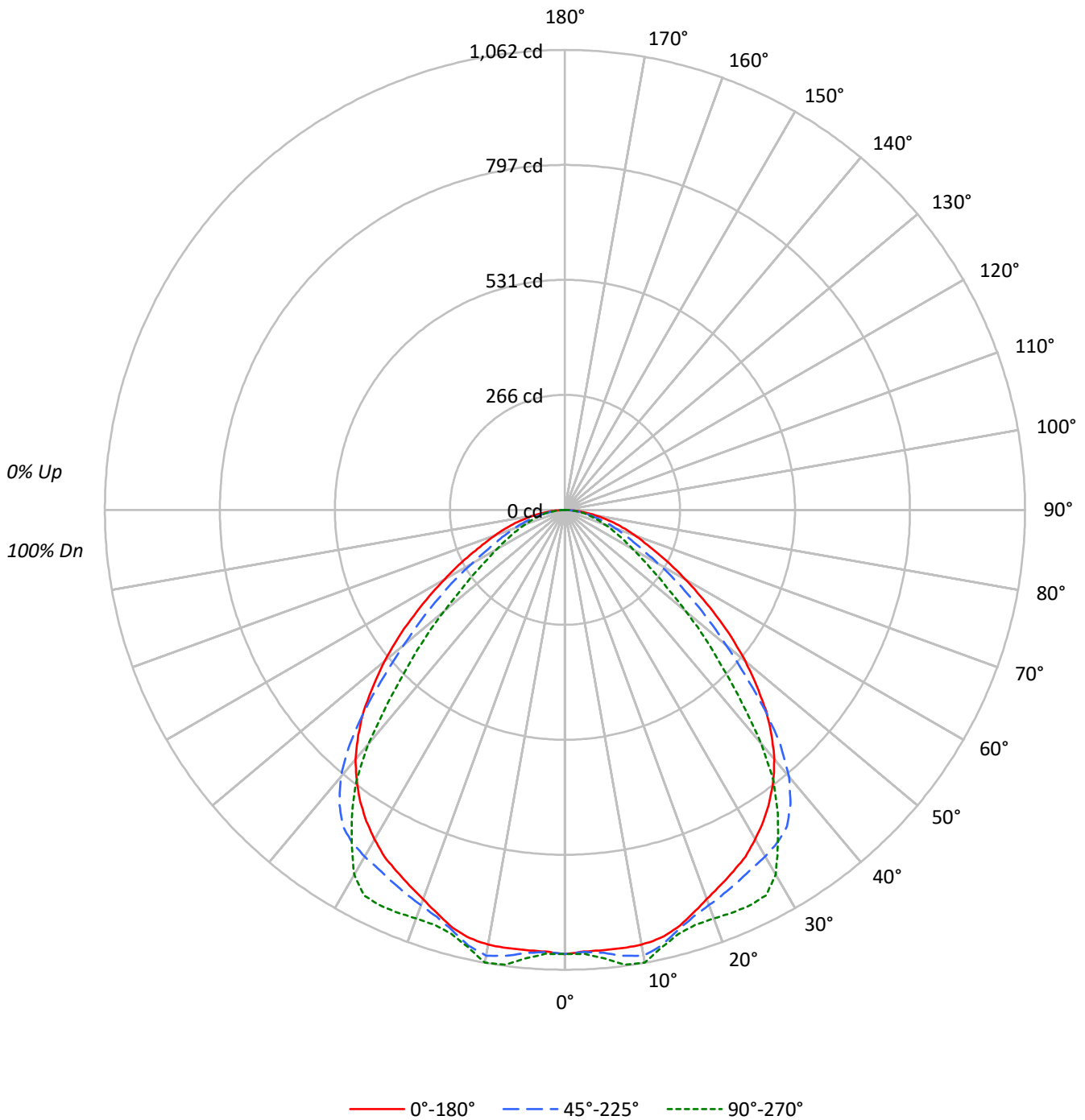
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2468.4 lumens
Efficiency: N/A
Efficacy: 138.7 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°	16566	16566	16566
5°	16543	16645	16849
10°	16718	17146	17403
15°	16712	16801	16939
20°	16443	16694	17251
25°	16395	16862	17961
30°	16378	17236	18133
35°	16224	17605	16882
40°	15850	16952	14857
45°	14997	14878	11750
50°	13634	12162	9115
55°	11983	10010	7094
60°	10369	8005	5842
65°	8951	6632	5116
70°	8049	5877	4541
75°	7374	5090	4173
80°	6416	4082	4082
85°	4650	3687	1945

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 16239 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	4.0
10°-20°	286.9	11.6
20°-30°	443.7	18.0
30°-40°	534.3	21.6
40°-50°	479.6	19.4
50°-60°	320.2	13.0
60°-70°	186.0	7.5
70°-80°	95.6	3.9
80°-90°	23.0	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°	829.7	33.6
0°-40°	1364.0	55.3
0°-60°	2163.8	87.7
0°-90°	2468.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2468.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1026	1026	1026	1026	1026	
5°	1021	1038	1027	1029	1040	97
15°	1000	1042	1005	1008	1013	281
25°	920	958	946	981	1008	425
35°	823	830	893	876	856	514
45°	657	711	652	550	515	503
55°	426	442	356	275	252	382
65°	234	240	174	141	134	236
75°	118	115	82	69	67	125
85°	25	20	20	14	10	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1026.0	1026.0	1026.0	1026.0	1026.0
2.5°	1020.7	1036.4	1021.8	1022.8	1026.0
5°	1020.7	1038.5	1027.0	1029.1	1039.6
7.5°	1020.7	1044.8	1038.5	1045.8	1059.4
10°	1019.7	1050.0	1045.8	1046.9	1061.5
12.5°	1013.4	1050.0	1030.2	1028.1	1034.3
15°	999.8	1041.7	1005.1	1008.2	1013.4
17.5°	977.9	1021.8	985.2	995.6	1004.0
20°	957.0	999.8	971.6	986.2	1004.0
22.5°	938.1	981.0	959.0	981.0	1007.2
25°	920.3	958.0	946.5	981.0	1008.2
27.5°	902.6	926.6	933.9	982.1	1004.0
30°	878.5	893.2	924.5	965.3	972.6
32.5°	852.4	859.7	912.0	928.7	915.1
35°	823.1	830.4	893.2	876.4	856.5
37.5°	789.6	802.2	855.5	812.6	790.7
40°	752.0	777.1	804.3	731.0	704.9
42.5°	705.9	749.9	736.3	638.0	604.5
45°	656.8	711.2	651.6	550.1	514.6
47.5°	599.3	657.8	562.7	470.6	438.2
50°	542.8	587.8	484.2	399.5	362.9
52.5°	485.3	514.6	417.3	332.6	300.2
55°	425.7	442.4	355.6	275.1	252.0
57.5°	370.2	381.7	301.2	229.0	211.3
60°	321.1	328.4	247.9	194.5	180.9
62.5°	276.1	281.3	205.0	165.2	155.8
65°	234.3	239.5	173.6	141.2	133.9
67.5°	199.8	202.9	147.5	121.3	114.0
70°	170.5	171.5	124.5	101.4	96.2
72.5°	144.3	142.2	102.5	84.7	81.6
75°	118.2	115.0	81.6	69.0	66.9
77.5°	93.1	89.9	60.7	55.4	55.4
80°	69.0	64.8	43.9	43.9	43.9
82.5°	47.1	40.8	31.4	31.4	30.3
85°	25.1	19.9	19.9	13.6	10.5
87.5°	8.4	8.4	3.1	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	20.46	21.96	20.83	22.27	22.58	17.19	18.68	17.55	19.00	19.31
	3H	21.74	23.08	22.12	23.40	23.77	18.30	19.64	18.68	19.97	20.33
	4H	22.22	23.47	22.62	23.82	24.20	18.73	19.98	19.13	20.33	20.71
	6H	22.57	23.72	22.98	24.09	24.48	19.09	20.24	19.50	20.61	21.00
	8H	22.67	23.76	23.09	24.15	24.55	19.19	20.29	19.62	20.68	21.08
	12H	22.71	23.76	23.14	24.15	24.58	19.22	20.27	19.65	20.65	21.08
4H	2H	20.61	21.86	21.01	22.21	22.59	17.83	19.08	18.23	19.43	19.81
	3H	22.14	23.17	22.55	23.57	23.98	19.15	20.19	19.56	20.59	20.99
	4H	22.76	23.69	23.19	24.10	24.54	19.68	20.61	20.12	21.03	21.47
	6H	23.24	24.05	23.70	24.49	24.95	20.15	20.95	20.61	21.40	21.86
	8H	23.38	24.14	23.85	24.58	25.05	20.28	21.03	20.75	21.48	21.95
	12H	23.46	24.14	23.95	24.61	25.09	20.33	21.00	20.81	21.48	21.95
8H	4H	22.83	23.58	23.29	24.02	24.49	20.03	20.78	20.49	21.23	21.69
	6H	23.39	24.01	23.89	24.51	24.99	20.58	21.20	21.08	21.70	22.18
	8H	23.59	24.15	24.11	24.66	25.15	20.77	21.33	21.28	21.84	22.33
	12H	23.72	24.22	24.23	24.71	25.27	20.86	21.35	21.37	21.84	22.41
12H	4H	22.81	23.48	23.29	23.96	24.43	20.07	20.74	20.56	21.22	21.69
	6H	23.38	23.94	23.89	24.45	24.94	20.64	21.20	21.16	21.71	22.20
	8H	23.62	24.11	24.13	24.60	25.17	20.88	21.37	21.39	21.86	22.43