

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: P845589

Luminaire Tested: SQ2R-PP3-050D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845589
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-830-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PRISM CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

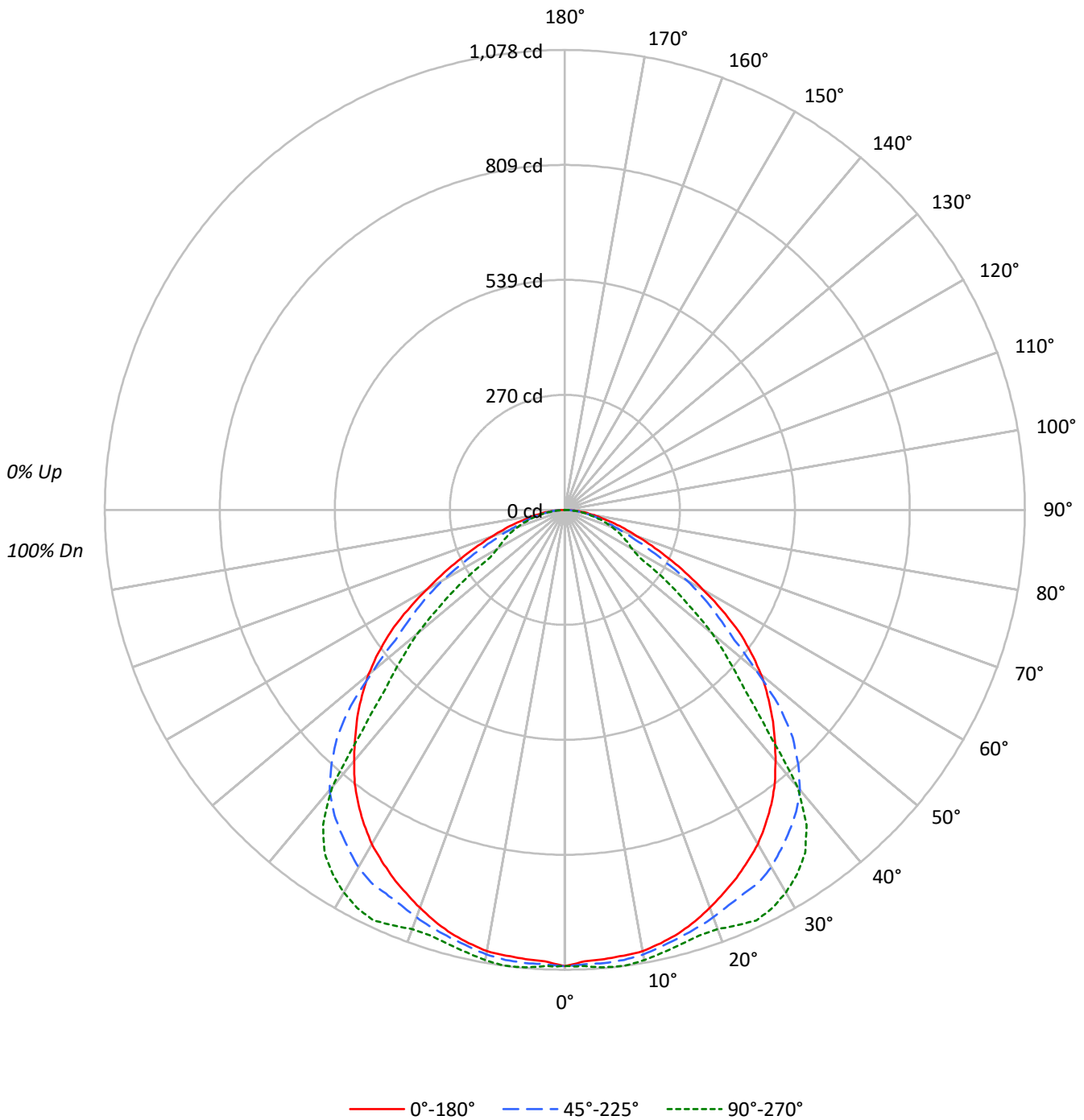
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2694.2 lumens
Efficiency: N/A
Efficacy: 151.4 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°	17270	17270	17270
5°	17133	17280	17446
10°	17221	17351	17572
15°	17180	17349	17615
20°	17057	17464	17969
25°	16960	17685	18914
30°	16863	18043	19309
35°	16626	18096	19344
40°	16181	18063	17873
45°	15696	17246	13604
50°	15081	14712	11331
55°	14035	12380	8146
60°	12084	10624	5842
65°	10193	8206	5746
70°	8488	6458	5500
75°	7193	5571	5147
80°	6100	4835	4621
85°	4817	3983	2519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17246 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.9	3.8
10°-20°	294.8	10.9
20°-30°	462.1	17.2
30°-40°	570.6	21.2
40°-50°	537.1	19.9
50°-60°	379.7	14.1
60°-70°	215.7	8.0
70°-80°	106.8	4.0
80°-90°	25.5	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°	858.8	31.9
0°-40°	1429.3	53.1
0°-60°	2346.1	87.1
0°-90°	2694.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2694.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1057	1076	1066	1068	1076	101
15°	1028	1042	1038	1048	1054	290
25°	952	977	993	1032	1062	439
35°	844	867	918	970	981	527
45°	687	741	755	641	596	530
55°	499	529	440	332	289	441
65°	267	282	215	152	150	267
75°	115	128	89	84	82	124
85°	26	24	22	17	14	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1069.6	1069.6	1069.6	1069.6	1069.6
2.5°	1059.4	1078.6	1066.2	1068.5	1070.7
5°	1057.1	1076.4	1066.2	1068.5	1076.4
7.5°	1053.8	1074.1	1063.9	1067.3	1077.5
10°	1050.4	1067.3	1058.3	1063.9	1071.8
12.5°	1040.2	1056.0	1048.1	1056.0	1062.8
15°	1027.8	1042.5	1037.9	1048.1	1053.8
17.5°	1011.9	1028.9	1027.8	1041.3	1045.8
20°	992.7	1014.2	1016.4	1034.5	1045.8
22.5°	972.4	998.4	1002.9	1032.3	1053.8
25°	952.0	976.9	992.7	1032.3	1061.7
27.5°	928.3	953.1	984.8	1028.9	1052.6
30°	904.5	928.3	967.8	1014.2	1035.7
32.5°	875.1	900.0	943.0	993.8	1013.1
35°	843.5	867.2	918.1	970.1	981.4
37.5°	808.4	833.3	890.9	926.0	930.5
40°	767.7	802.8	857.0	862.7	848.0
42.5°	728.1	775.6	809.5	780.1	702.1
45°	687.4	740.6	755.3	641.1	595.8
47.5°	644.5	697.6	680.6	551.8	520.1
50°	600.4	650.1	585.7	480.5	451.1
52.5°	550.6	593.6	500.9	412.7	364.1
55°	498.6	529.1	439.8	332.4	289.4
57.5°	436.4	459.0	387.8	261.2	206.9
60°	374.2	391.2	329.0	204.6	180.9
62.5°	317.7	332.4	268.0	170.7	166.2
65°	266.8	281.5	214.8	151.5	150.4
67.5°	220.5	236.3	171.9	135.7	134.5
70°	179.8	196.7	136.8	118.7	116.5
72.5°	145.9	161.7	110.8	100.6	99.5
75°	115.3	127.8	89.3	83.7	82.5
77.5°	88.2	97.2	70.1	66.7	65.6
80°	65.6	69.0	52.0	50.9	49.7
82.5°	45.2	43.0	36.2	35.0	32.8
85°	26.0	23.7	21.5	17.0	13.6
87.5°	10.2	10.2	4.5	3.4	3.4
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	21.34	22.87	21.71	23.18	23.50	17.75	19.27	18.11	19.58	19.90
	3H	22.49	23.85	22.87	24.18	24.54	18.90	20.26	19.28	20.59	20.95
	4H	22.86	24.14	23.26	24.49	24.87	19.39	20.67	19.79	21.01	21.39
	6H	23.11	24.29	23.52	24.65	25.05	19.77	20.94	20.18	21.31	21.70
	8H	23.18	24.30	23.60	24.69	25.09	19.87	20.99	20.30	21.38	21.78
	12H	23.21	24.28	23.64	24.66	25.09	19.91	20.98	20.34	21.36	21.79
4H	2H	21.53	22.81	21.93	23.16	23.54	18.54	19.81	18.94	20.16	20.54
	3H	22.90	23.96	23.31	24.36	24.76	19.85	20.90	20.26	21.30	21.70
	4H	23.40	24.35	23.83	24.76	25.20	20.43	21.37	20.86	21.79	22.23
	6H	23.77	24.59	24.23	25.04	25.50	20.90	21.72	21.36	22.16	22.62
	8H	23.88	24.65	24.34	25.09	25.56	21.03	21.80	21.50	22.24	22.71
	12H	23.94	24.63	24.42	25.11	25.58	21.09	21.77	21.57	22.25	22.72
8H	4H	23.46	24.23	23.93	24.68	25.14	20.74	21.51	21.21	21.96	22.42
	6H	23.92	24.55	24.42	25.04	25.52	21.31	21.95	21.81	22.44	22.91
	8H	24.07	24.65	24.59	25.16	25.64	21.50	22.07	22.01	22.58	23.07
	12H	24.19	24.69	24.70	25.19	25.75	21.60	22.10	22.11	22.60	23.16
12H	4H	23.45	24.14	23.93	24.62	25.09	20.78	21.47	21.26	21.94	22.42
	6H	23.91	24.48	24.42	24.99	25.48	21.36	21.93	21.88	22.44	22.93
	8H	24.10	24.61	24.61	25.10	25.67	21.60	22.11	22.11	22.60	23.16