

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: P855502

Luminaire Tested: SQ2-PR1-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855502
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-050D-830-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

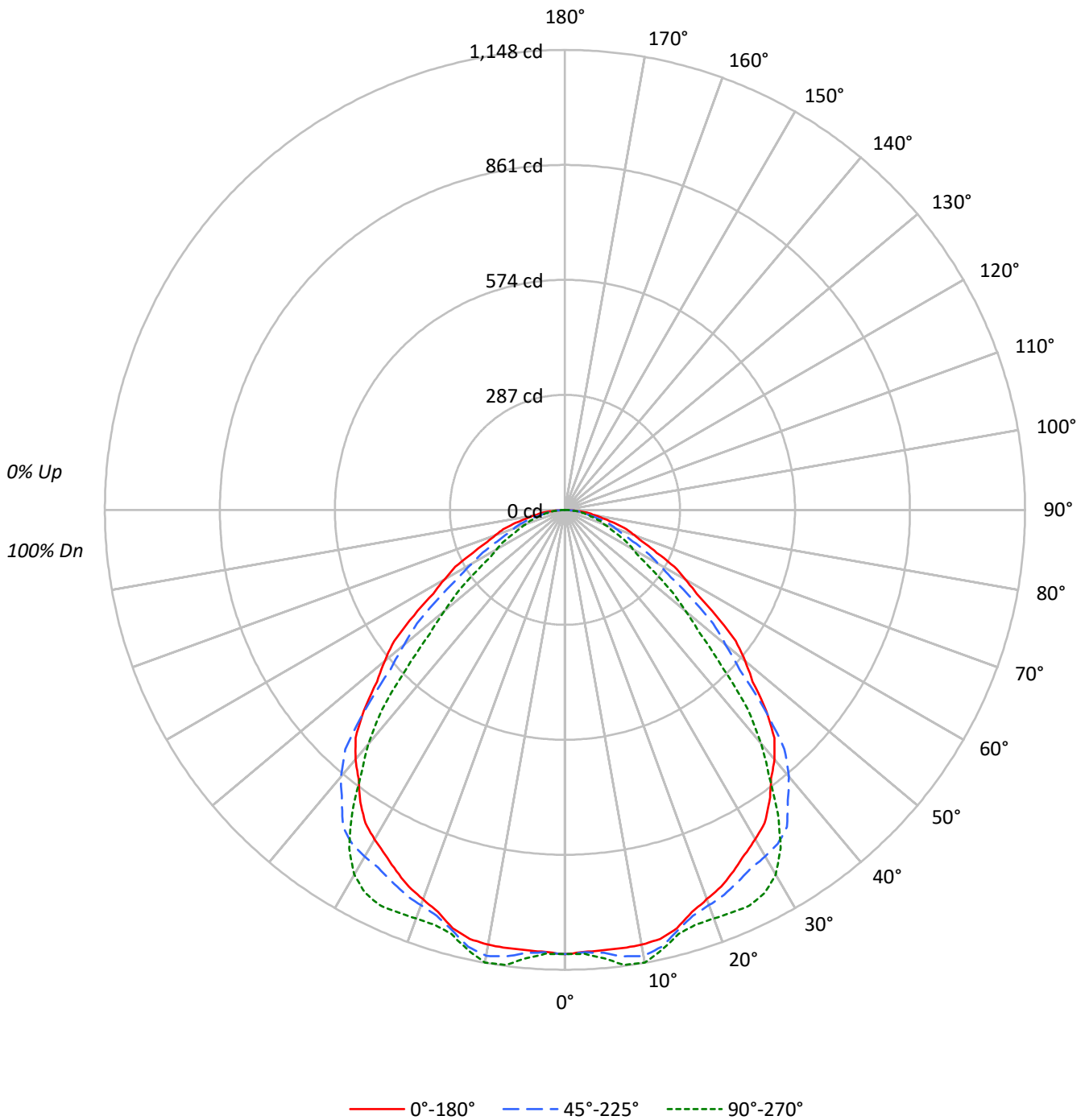
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2668.2 lumens
Efficiency: N/A
Efficacy: 149.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 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: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
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	90	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	66	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	47	42	54	47	42	52	46	41	51	45	41	39				39
8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35				35
9	60	47	39	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°	17909	17909	17909
5°	17885	17995	18216
10°	18074	18536	18815
15°	18068	18161	18313
20°	17775	18048	18649
25°	17726	18228	19417
30°	17706	18634	19604
35°	17538	19032	18252
40°	17133	18326	16063
45°	16212	16084	12702
50°	14740	13150	9854
55°	12954	10821	7671
60°	11208	8654	6316
65°	9677	7171	5528
70°	8700	6349	4910
75°	7973	5502	4517
80°	6936	4417	4417
85°	5020	3983	2093

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 17527 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.1	4.0
10°-20°	310.1	11.6
20°-30°	479.3	18.0
30°-40°	576.5	21.6
40°-50°	517.6	19.4
50°-60°	346.8	13.0
60°-70°	201.7	7.6
70°-80°	103.6	3.9
80°-90°	25.5	1.0
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°	896.5	33.6
0°-40°	1473.0	55.2
0°-60°	2337.4	87.6
0°-90°	2668.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2668.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1109	1109	1109	1109	1109	
5°	1104	1122	1110	1113	1124	105
15°	1081	1125	1086	1090	1096	304
25°	995	1035	1023	1061	1090	459
35°	890	898	966	947	926	555
45°	710	768	704	594	556	543
55°	460	478	384	297	272	414
65°	253	259	188	152	145	256
75°	128	124	88	75	72	136
85°	27	22	22	15	11	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1109.2	1109.2	1109.2	1109.2	1109.2
2.5°	1104.6	1117.9	1105.5	1106.6	1109.2
5°	1103.5	1122.3	1110.3	1112.8	1123.9
7.5°	1103.3	1130.1	1124.3	1131.2	1145.8
10°	1102.4	1134.5	1130.6	1132.1	1147.6
12.5°	1096.9	1134.4	1117.1	1115.7	1124.1
15°	1080.9	1125.1	1086.5	1090.1	1095.6
17.5°	1052.6	1098.9	1062.1	1074.6	1085.4
20°	1034.5	1079.9	1050.4	1066.6	1085.4
22.5°	1018.3	1063.6	1039.5	1062.2	1088.1
25°	995.0	1034.8	1023.2	1061.2	1089.9
27.5°	970.5	993.9	1007.6	1058.5	1078.6
30°	949.7	965.2	999.5	1043.8	1051.5
32.5°	927.1	936.4	988.6	1011.7	1001.7
35°	889.8	897.6	965.6	947.0	926.0
37.5°	845.5	861.4	913.8	860.3	836.2
40°	812.9	839.5	869.5	789.8	762.1
42.5°	773.1	815.6	810.7	709.0	675.2
45°	710.0	767.6	704.4	593.8	556.3
47.5°	635.6	694.7	591.3	492.6	457.5
50°	586.8	634.3	523.5	431.0	392.3
52.5°	537.1	571.3	465.6	373.2	338.1
55°	460.2	477.8	384.4	296.8	272.5
57.5°	389.6	400.9	314.1	239.7	221.8
60°	347.1	354.8	268.0	210.0	195.6
62.5°	308.2	314.2	230.9	184.7	173.9
65°	253.3	258.8	187.7	152.4	144.7
67.5°	209.6	212.4	154.4	126.7	119.4
70°	184.3	185.4	134.5	109.6	104.0
72.5°	161.7	160.1	115.6	95.1	91.4
75°	127.8	124.5	88.2	74.6	72.4
77.5°	95.4	91.9	62.0	57.4	57.4
80°	74.6	70.2	47.5	47.5	47.5
82.5°	55.6	49.4	36.6	36.6	35.7
85°	27.1	21.6	21.5	14.6	11.3
87.5°	7.2	7.2	2.7	2.7	2.7
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	20.73	22.22	21.09	22.54	22.85	17.45	18.95	17.82	19.26	19.58
	3H	22.01	23.34	22.39	23.67	24.03	18.57	19.90	18.94	20.23	20.59
	4H	22.49	23.74	22.89	24.09	24.47	18.99	20.25	19.39	20.59	20.97
	6H	22.84	23.99	23.25	24.36	24.75	19.36	20.51	19.77	20.88	21.27
	8H	22.93	24.03	23.36	24.42	24.82	19.46	20.56	19.88	20.95	21.35
	12H	22.98	24.03	23.41	24.42	24.85	19.49	20.54	19.92	20.92	21.35
4H	2H	20.88	22.13	21.28	22.48	22.86	18.10	19.35	18.50	19.70	20.08
	3H	22.41	23.44	22.82	23.84	24.24	19.42	20.45	19.83	20.85	21.25
	4H	23.03	23.95	23.46	24.37	24.81	19.95	20.88	20.38	21.29	21.73
	6H	23.51	24.32	23.97	24.76	25.22	20.42	21.22	20.87	21.67	22.13
	8H	23.65	24.41	24.12	24.85	25.32	20.55	21.30	21.01	21.75	22.22
	12H	23.73	24.41	24.22	24.89	25.36	20.60	21.27	21.08	21.75	22.22
8H	4H	23.10	23.85	23.56	24.29	24.76	20.30	21.05	20.76	21.49	21.96
	6H	23.66	24.29	24.16	24.78	25.26	20.85	21.47	21.35	21.97	22.44
	8H	23.86	24.42	24.38	24.93	25.42	21.04	21.60	21.55	22.11	22.60
	12H	23.99	24.49	24.50	24.98	25.55	21.13	21.62	21.64	22.11	22.68
12H	4H	23.08	23.75	23.56	24.23	24.70	20.34	21.01	20.82	21.49	21.96
	6H	23.65	24.21	24.16	24.72	25.21	20.91	21.47	21.43	21.98	22.47
	8H	23.89	24.38	24.40	24.88	25.44	21.15	21.64	21.66	22.13	22.70