

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: P854029

Luminaire Tested: SQ2-PH1-0U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854029
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-0U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

Summary

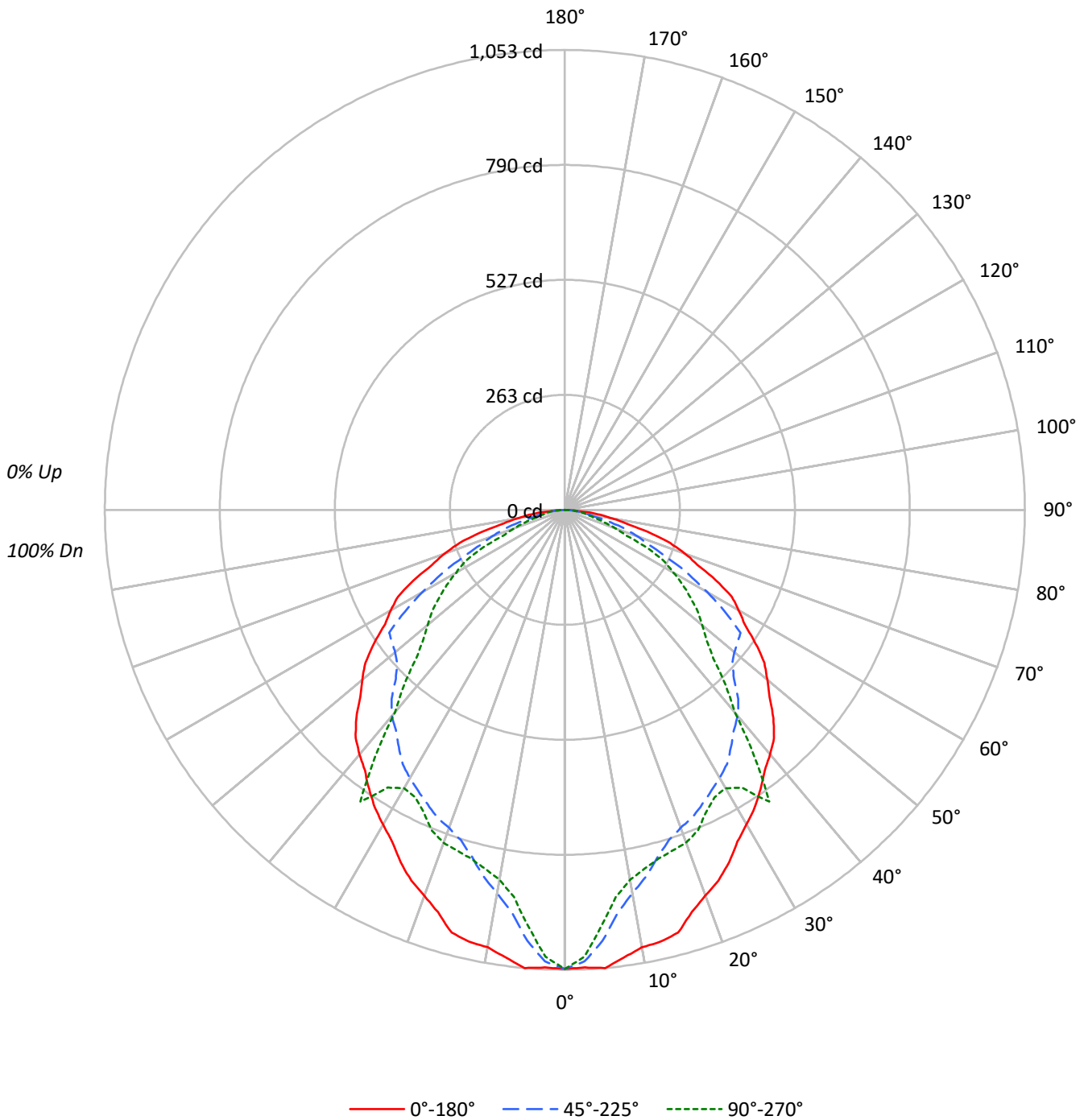
Lumens per Lamp: N/A
Luminaire Lumens: 2324.7 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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				
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85				
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72				
3	91	81	73	67	89	80	72	67	77	71	65	74	69	64	72	67	63	61				
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53				
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46				
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40				
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36				
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32				
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29				
10	54	41	34	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16969	16969	16969
5°	17067	16045	15511
10°	16674	14608	14100
15°	16749	13740	13824
20°	16151	13316	13935
25°	15855	13254	13611
30°	15511	13218	13722
35°	15394	13068	16084
40°	15407	12983	12752
45°	15413	12490	10983
50°	15197	12735	10299
55°	15004	13821	9880
60°	14854	12109	9268
65°	14594	9819	8061
70°	13785	8356	5759
75°	12289	6301	4367
80°	10042	4091	4091
85°	6299	3705	2779

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15413 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.5	4.0
10°-20°	243.3	10.5
20°-30°	356.7	15.3
30°-40°	431.9	18.6
40°-50°	424.8	18.3
50°-60°	369.8	15.9
60°-70°	257.1	11.1
70°-80°	121.9	5.2
80°-90°	26.9	1.2
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°	692.4	29.8
0°-40°	1124.4	48.4
0°-60°	1918.9	82.5
0°-90°	2324.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2324.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1053	1052	990	959	957	99
15°	1002	892	822	816	827	279
25°	890	757	744	767	764	409
35°	781	631	663	720	816	489
45°	675	500	547	566	481	519
55°	533	389	491	354	351	476
65°	382	268	257	211	211	375
75°	197	136	101	72	70	209
85°	34	22	20	16	15	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1051.0	1051.0	1051.0	1051.0	1051.0
2.5°	1048.6	1059.6	1035.0	1025.4	1023.8
5°	1053.0	1052.0	990.0	959.0	957.0
7.5°	1033.8	1003.5	929.4	895.2	893.6
10°	1017.0	971.1	891.0	860.0	860.0
12.5°	1013.0	940.5	859.8	836.9	841.6
15°	1002.0	892.5	822.0	816.3	827.0
17.5°	965.6	847.7	792.6	805.7	818.2
20°	940.0	823.7	775.0	799.3	811.0
22.5°	918.4	800.5	762.2	788.7	795.0
25°	890.0	757.0	744.0	766.9	764.0
27.5°	856.0	717.2	725.8	739.8	741.6
30°	832.0	693.2	709.0	723.3	736.0
32.5°	808.8	665.3	690.6	724.5	753.6
35°	781.0	631.4	663.0	720.2	816.0
37.5°	751.8	591.4	635.2	683.3	713.8
40°	731.0	562.8	616.0	675.4	605.0
42.5°	708.6	540.4	587.2	663.9	545.0
45°	675.0	500.0	547.0	566.1	481.0
47.5°	635.4	468.6	519.8	472.0	438.8
50°	605.0	447.6	507.0	431.5	410.0
52.5°	575.4	425.8	498.2	398.1	383.6
55°	533.0	389.3	491.0	353.9	351.0
57.5°	488.0	352.1	434.2	315.5	320.6
60°	460.0	328.0	375.0	292.9	287.0
62.5°	430.4	304.7	319.8	264.1	258.2
65°	382.0	267.6	257.0	211.0	211.0
67.5°	328.8	229.1	208.2	172.7	149.2
70°	292.0	204.0	177.0	137.6	122.0
72.5°	252.8	177.3	145.0	112.8	94.8
75°	197.0	136.4	101.0	72.0	70.0
77.5°	142.4	98.2	68.0	53.4	53.6
80°	108.0	74.8	44.0	43.0	44.0
82.5°	76.0	51.4	32.8	34.2	34.4
85°	34.0	22.3	20.0	16.0	15.0
87.5°	7.2	6.4	4.0	4.0	4.0
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	21.01	22.60	21.37	22.91	23.23	19.68	21.27	20.04	21.58	21.90
	3H	23.08	24.51	23.46	24.84	25.20	20.76	22.20	21.14	22.52	22.88
	4H	23.85	25.19	24.25	25.54	25.92	21.01	22.36	21.41	22.70	23.08
	6H	24.37	25.61	24.78	25.98	26.37	21.19	22.44	21.60	22.80	23.19
	8H	24.51	25.70	24.94	26.09	26.49	21.24	22.43	21.67	22.82	23.22
	12H	24.58	25.72	25.01	26.10	26.53	21.26	22.40	21.69	22.78	23.21
4H	2H	21.47	22.81	21.87	23.16	23.54	20.41	21.75	20.80	22.10	22.47
	3H	23.64	24.76	24.05	25.15	25.56	21.65	22.77	22.06	23.17	23.57
	4H	24.48	25.49	24.91	25.90	26.34	21.95	22.96	22.39	23.38	23.81
	6H	25.11	25.98	25.56	26.43	26.88	22.20	23.08	22.66	23.52	23.98
	8H	25.29	26.11	25.75	26.56	27.02	22.27	23.10	22.74	23.54	24.00
	12H	25.39	26.13	25.87	26.61	27.08	22.32	23.05	22.80	23.53	24.00
8H	4H	24.55	25.38	25.02	25.82	26.28	22.23	23.05	22.69	23.49	23.96
	6H	25.24	25.91	25.73	26.40	26.88	22.53	23.21	23.02	23.70	24.17
	8H	25.47	26.08	25.98	26.58	27.07	22.64	23.24	23.15	23.75	24.24
	12H	25.61	26.15	26.12	26.64	27.20	22.71	23.25	23.22	23.74	24.30
12H	4H	24.54	25.28	25.02	25.75	26.22	22.26	22.99	22.74	23.47	23.94
	6H	25.21	25.82	25.73	26.33	26.82	22.56	23.17	23.07	23.68	24.17
	8H	25.48	26.02	25.99	26.51	27.07	22.71	23.25	23.22	23.74	24.30