

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: P854030

Luminaire Tested: SQ2-PH1-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854030
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-PH1-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

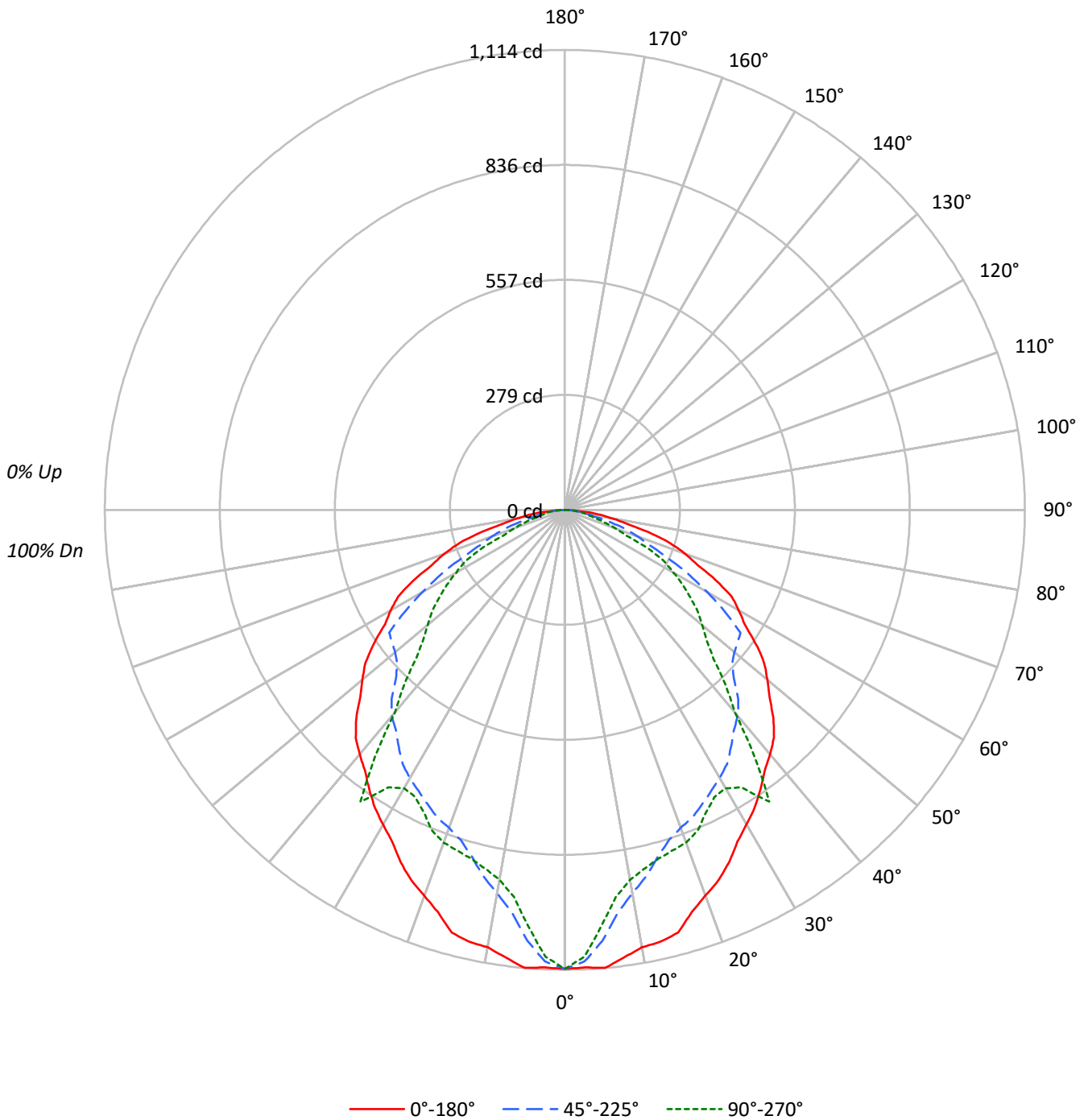
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2459.0 lumens
Efficiency: N/A
Efficacy: 138.1 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

TEST NUMBER: P854030
CATALOG NUMBER: SQ2-PH1-050D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854030

CATALOG NUMBER: SQ2-PH1-050D-940-UNV-STD-W-4

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	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°	17949	17949	17949
5°	18052	16973	16407
10°	17638	15452	14914
15°	17717	14534	14623
20°	17084	14086	14740
25°	16771	14020	14396
30°	16408	13983	14514
35°	16283	13823	17012
40°	16297	13734	13489
45°	16303	13212	11618
50°	16076	13471	10894
55°	15871	14621	10452
60°	15713	12810	9804
65°	15438	10384	8527
70°	14582	8837	6090
75°	13001	6662	4616
80°	10618	4324	4324
85°	6669	3927	2946

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16303 cd/sqm



TEST NUMBER: P854030

CATALOG NUMBER: SQ2-PH1-050D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.8	4.0
10°-20°	257.3	10.5
20°-30°	377.3	15.3
30°-40°	456.9	18.6
40°-50°	449.3	18.3
50°-60°	391.1	15.9
60°-70°	271.9	11.1
70°-80°	128.9	5.2
80°-90°	28.4	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°	732.4	29.8
0°-40°	1189.3	48.4
0°-60°	2029.8	82.5
0°-90°	2459.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2459.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1112	1112	1112	1112	1112	
5°	1114	1113	1047	1014	1012	105
15°	1060	944	870	863	875	295
25°	941	801	787	811	808	433
35°	826	668	701	762	863	517
45°	714	529	579	599	509	549
55°	564	412	519	374	371	504
65°	404	283	272	223	223	397
75°	208	144	107	76	74	221
85°	36	24	21	17	16	49
90°	0	0	0	0	0	



TEST NUMBER: P854030

CATALOG NUMBER: SQ2-PH1-050D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1111.7	1111.7	1111.7	1111.7	1111.7
2.5°	1109.2	1120.8	1094.8	1084.6	1083.0
5°	1113.8	1112.8	1047.2	1014.4	1012.3
7.5°	1093.5	1061.5	983.1	946.9	945.2
10°	1075.8	1027.1	942.5	909.7	909.7
12.5°	1071.5	994.8	909.5	885.3	890.2
15°	1059.9	944.1	869.5	863.4	874.8
17.5°	1021.4	896.7	838.4	852.2	865.5
20°	994.3	871.2	819.8	845.4	857.9
22.5°	971.5	846.7	806.2	834.3	840.9
25°	941.4	800.8	787.0	811.2	808.1
27.5°	905.5	758.6	767.7	782.6	784.4
30°	880.1	733.2	750.0	765.1	778.5
32.5°	855.5	703.7	730.5	766.3	797.1
35°	826.1	667.9	701.3	761.8	863.1
37.5°	795.2	625.6	671.9	722.8	755.0
40°	773.2	595.3	651.6	714.4	640.0
42.5°	749.5	571.6	621.1	702.3	576.5
45°	714.0	528.9	578.6	598.8	508.8
47.5°	672.1	495.7	549.8	499.3	464.2
50°	640.0	473.4	536.3	456.4	433.7
52.5°	608.6	450.4	527.0	421.1	405.8
55°	563.8	411.8	519.4	374.4	371.3
57.5°	516.2	372.4	459.3	333.7	339.1
60°	486.6	347.0	396.7	309.8	303.6
62.5°	455.3	322.3	338.3	279.3	273.1
65°	404.1	283.1	271.8	223.2	223.2
67.5°	347.8	242.3	220.2	182.6	157.8
70°	308.9	215.8	187.2	145.6	129.0
72.5°	267.4	187.6	153.4	119.3	100.3
75°	208.4	144.3	106.8	76.1	74.0
77.5°	150.6	103.9	71.9	56.5	56.7
80°	114.2	79.1	46.5	45.5	46.5
82.5°	80.4	54.3	34.7	36.2	36.4
85°	36.0	23.6	21.2	16.9	15.9
87.5°	7.6	6.8	4.2	4.2	4.2
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	21.20	22.79	21.57	23.11	23.42	19.88	21.47	20.24	21.78	22.09
	3H	23.28	24.71	23.66	25.04	25.40	20.96	22.39	21.34	22.72	23.08
	4H	24.04	25.39	24.44	25.74	26.11	21.21	22.55	21.61	22.90	23.28
	6H	24.56	25.81	24.98	26.17	26.56	21.39	22.63	21.80	23.00	23.39
	8H	24.71	25.89	25.13	26.28	26.68	21.44	22.62	21.86	23.01	23.41
	12H	24.78	25.91	25.21	26.29	26.72	21.46	22.60	21.89	22.98	23.41
4H	2H	21.66	23.01	22.06	23.35	23.73	20.60	21.95	21.00	22.29	22.67
	3H	23.83	24.95	24.24	25.35	25.75	21.84	22.96	22.25	23.36	23.76
	4H	24.68	25.69	25.11	26.10	26.54	22.15	23.16	22.58	23.57	24.01
	6H	25.30	26.18	25.76	26.62	27.08	22.40	23.27	22.85	23.72	24.17
	8H	25.49	26.31	25.95	26.75	27.22	22.47	23.29	22.93	23.73	24.20
	12H	25.59	26.32	26.07	26.80	27.27	22.51	23.25	22.99	23.72	24.19
8H	4H	24.75	25.57	25.21	26.01	26.48	22.42	23.24	22.88	23.68	24.15
	6H	25.43	26.11	25.93	26.60	27.08	22.72	23.40	23.22	23.89	24.37
	8H	25.66	26.27	26.17	26.78	27.27	22.83	23.44	23.34	23.95	24.43
	12H	25.81	26.35	26.32	26.84	27.40	22.91	23.44	23.42	23.94	24.50
12H	4H	24.74	25.47	25.22	25.95	26.42	22.45	23.19	22.93	23.66	24.13
	6H	25.41	26.02	25.92	26.53	27.01	22.76	23.37	23.27	23.87	24.36
	8H	25.68	26.21	26.18	26.70	27.27	22.91	23.44	23.41	23.93	24.50