

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: P853994

Luminaire Tested: SQ2-PH1-025U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853994
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-025U-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

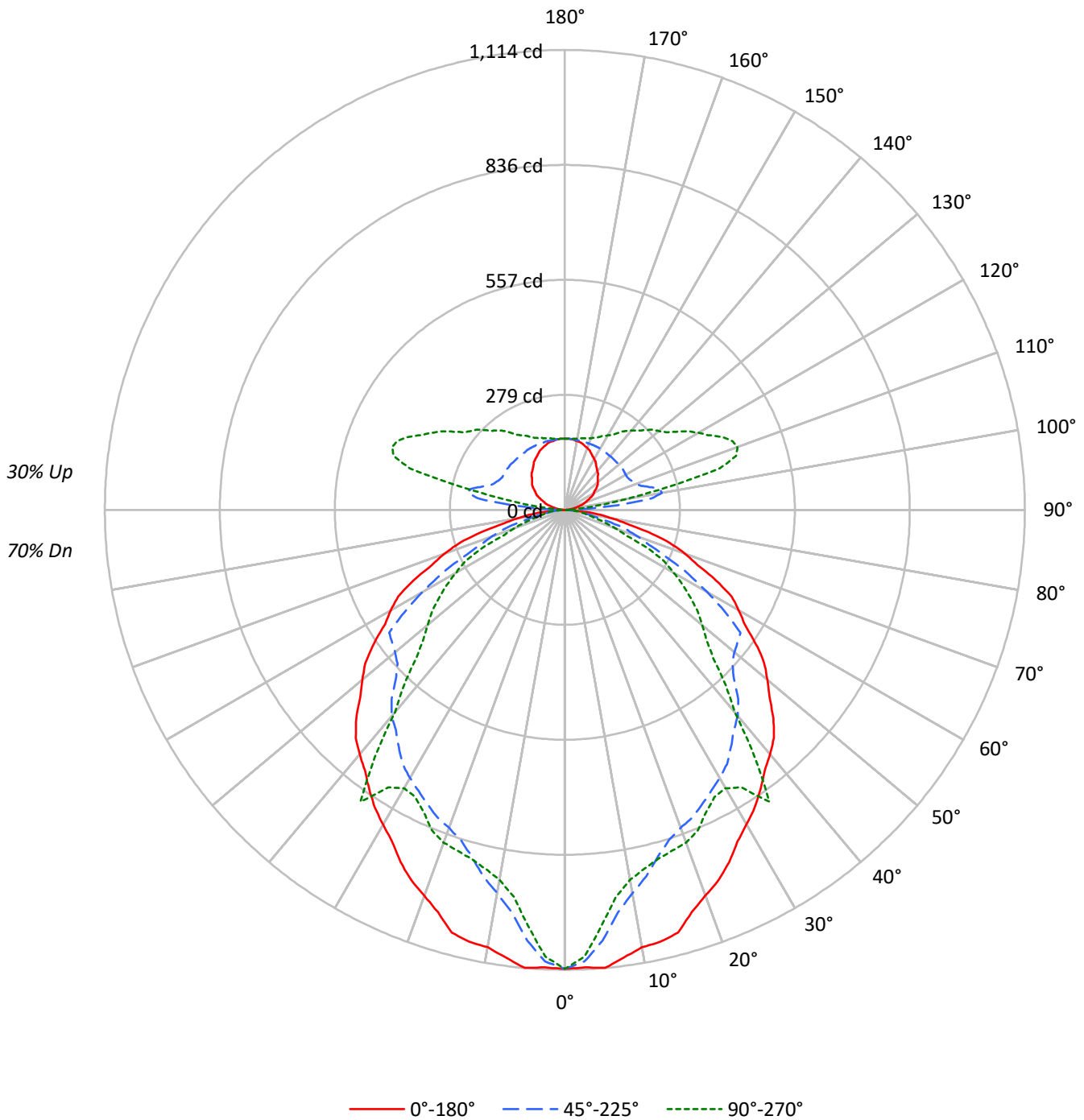
Lumens per Lamp: N/A
Luminaire Lumens: 3528.2 lumens
Efficiency: N/A
Efficacy: 140.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.2
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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	74	74	70	
1	103	98	94	91	97	93	90	87	83	81	78	74	72	71	66	65	63	63	63	63	59	
2	94	86	80	75	88	82	76	71	73	69	65	66	62	59	58	56	54	54	54	54	50	
3	85	76	68	62	81	72	65	60	65	59	55	58	54	50	52	49	46	46	46	46	43	
4	78	67	59	53	74	64	57	51	58	52	47	52	47	43	47	43	40	40	40	40	37	
5	72	60	52	46	68	57	50	44	52	46	41	47	42	38	42	38	35	35	35	35	32	
6	66	54	46	40	63	52	44	38	47	40	36	42	37	33	38	34	31	31	31	31	28	
7	62	49	41	35	58	47	39	34	42	36	32	39	33	29	35	30	27	27	27	27	25	
8	57	45	37	31	54	43	35	30	39	33	28	35	30	26	32	28	24	24	24	24	22	
9	53	41	33	28	50	39	32	27	36	30	25	33	27	24	30	25	22	22	22	22	20	
10	50	38	30	25	47	36	29	24	33	27	23	30	25	22	27	23	20	20	20	20	18	

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.8	2.8
10°-20°	257.3	7.3
20°-30°	377.3	10.7
30°-40°	456.9	12.9
40°-50°	449.3	12.7
50°-60°	391.1	11.1
60°-70°	271.9	7.7
70°-80°	128.9	3.7
80°-90°	28.9	0.8
90°-100°	69.7	2.0
100°-110°	216.8	6.1
110°-120°	212.1	6.0
120°-130°	173.1	4.9
130°-140°	141.6	4.0
140°-150°	110.5	3.1
150°-160°	79.8	2.3
160°-170°	48.8	1.4
170°-180°	16.4	0.5
0°-30°	732.4	20.8
0°-40°	1189.3	33.7
0°-60°	2029.8	57.5
0°-90°	2459.5	69.7
90°-120°	498.5	14.1
90°-150°	923.8	26.2
90°-180°	1069.0	30.3
0°-180°	3528.2	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	48
90°	0	1	3	3	3	2
95°	10	28	128	47	31	11
105°	38	54	213	407	389	40
115°	68	80	173	357	418	67
125°	94	104	171	281	330	83
135°	113	125	170	243	273	87
145°	132	142	170	210	228	83
155°	151	156	171	188	194	70
165°	166	167	172	178	180	47
175°	172	172	172	173	172	16
180°	172	172	172	172	172	



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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	7.0	4.9	4.9	4.9
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.9	40.4	13.3	10.8
95°	9.5	28.1	127.8	47.2	30.6
97.5°	17.3	36.5	211.7	131.8	83.0
100°	23.2	40.8	238.8	223.3	149.0
102.5°	29.2	45.9	233.7	319.0	250.4
105°	38.0	53.5	213.4	407.4	388.8
107.5°	46.9	61.4	194.0	414.2	434.6
110°	52.8	67.3	183.8	404.5	444.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.7	72.4	178.8	387.0	438.0
115°	67.6	80.0	173.3	357.4	418.4
117.5°	76.3	87.6	170.9	329.1	391.5
120°	81.3	92.7	170.1	313.0	372.9
122.5°	86.4	97.8	170.9	299.4	354.3
125°	94.0	104.4	171.1	281.1	329.6
127.5°	100.2	110.7	171.1	267.4	308.7
130°	103.5	114.9	171.1	259.7	296.9
132.5°	107.8	119.1	170.3	252.9	287.6
135°	113.0	125.4	170.1	242.6	272.6
137.5°	119.2	130.5	170.1	232.4	259.7
140°	122.6	133.9	170.1	225.6	250.4
142.5°	126.8	137.3	170.1	218.8	241.1
145°	132.1	142.4	170.1	209.6	228.2
147.5°	138.4	147.3	171.1	201.1	215.7
150°	142.6	149.9	171.1	196.8	208.1
152.5°	146.0	152.4	171.1	192.5	202.2
155°	151.1	156.2	171.1	188.2	194.4
157.5°	156.1	160.1	171.1	184.3	188.3
160°	159.5	162.6	171.1	181.8	184.9
162.5°	162.1	164.3	171.1	180.1	182.3
165°	165.9	166.9	172.2	177.5	179.6
167.5°	168.2	168.4	171.1	176.0	177.1
170°	169.0	170.1	171.1	174.3	175.4
172.5°	170.7	170.9	172.0	173.5	173.7
175°	172.2	172.2	172.2	173.2	172.2
177.5°	172.2	172.2	172.2	172.2	172.2
180°	172.2	172.2	172.2	172.2	172.2



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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	19.01	20.07	19.78	20.86	21.82	17.69	18.74	18.45	19.54	20.49
	3H	21.05	22.00	21.84	22.80	23.79	18.73	19.68	19.52	20.48	21.47
	4H	21.79	22.69	22.59	23.50	24.50	18.96	19.85	19.76	20.66	21.66
	6H	22.29	23.11	23.10	23.93	24.95	19.11	19.94	19.92	20.75	21.77
	8H	22.42	23.20	23.24	24.04	25.06	19.15	19.94	19.97	20.77	21.79
	12H	22.47	23.22	23.30	24.05	25.09	19.15	19.90	19.98	20.73	21.77
4H	2H	19.41	20.31	20.22	21.12	22.12	18.35	19.25	19.15	20.05	21.06
	3H	21.54	22.28	22.35	23.12	24.14	19.55	20.29	20.37	21.14	22.15
	4H	22.36	23.04	23.19	23.88	24.92	19.83	20.51	20.66	21.35	22.40
	6H	22.96	23.54	23.80	24.41	25.46	20.05	20.64	20.90	21.50	22.55
	8H	23.13	23.68	23.98	24.54	25.60	20.11	20.66	20.96	21.52	22.58
	12H	23.21	23.70	24.08	24.58	25.65	20.13	20.62	21.00	21.50	22.57
8H	4H	22.39	22.94	23.24	23.80	24.86	20.06	20.61	20.91	21.47	22.53
	6H	23.05	23.50	23.93	24.41	25.47	20.34	20.79	21.22	21.70	22.76
	8H	23.28	23.68	24.17	24.58	25.66	20.45	20.85	21.34	21.74	22.82
	12H	23.40	23.75	24.30	24.64	25.78	20.50	20.85	21.39	21.74	22.88
12H	4H	22.35	22.84	23.22	23.73	24.79	20.07	20.56	20.94	21.44	22.51
	6H	23.03	23.43	23.92	24.33	25.41	20.38	20.78	21.26	21.67	22.75
	8H	23.27	23.62	24.16	24.51	25.64	20.50	20.85	21.39	21.74	22.87