

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: P854257

Luminaire Tested: SQ2-PW1-050U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854257
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-050U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

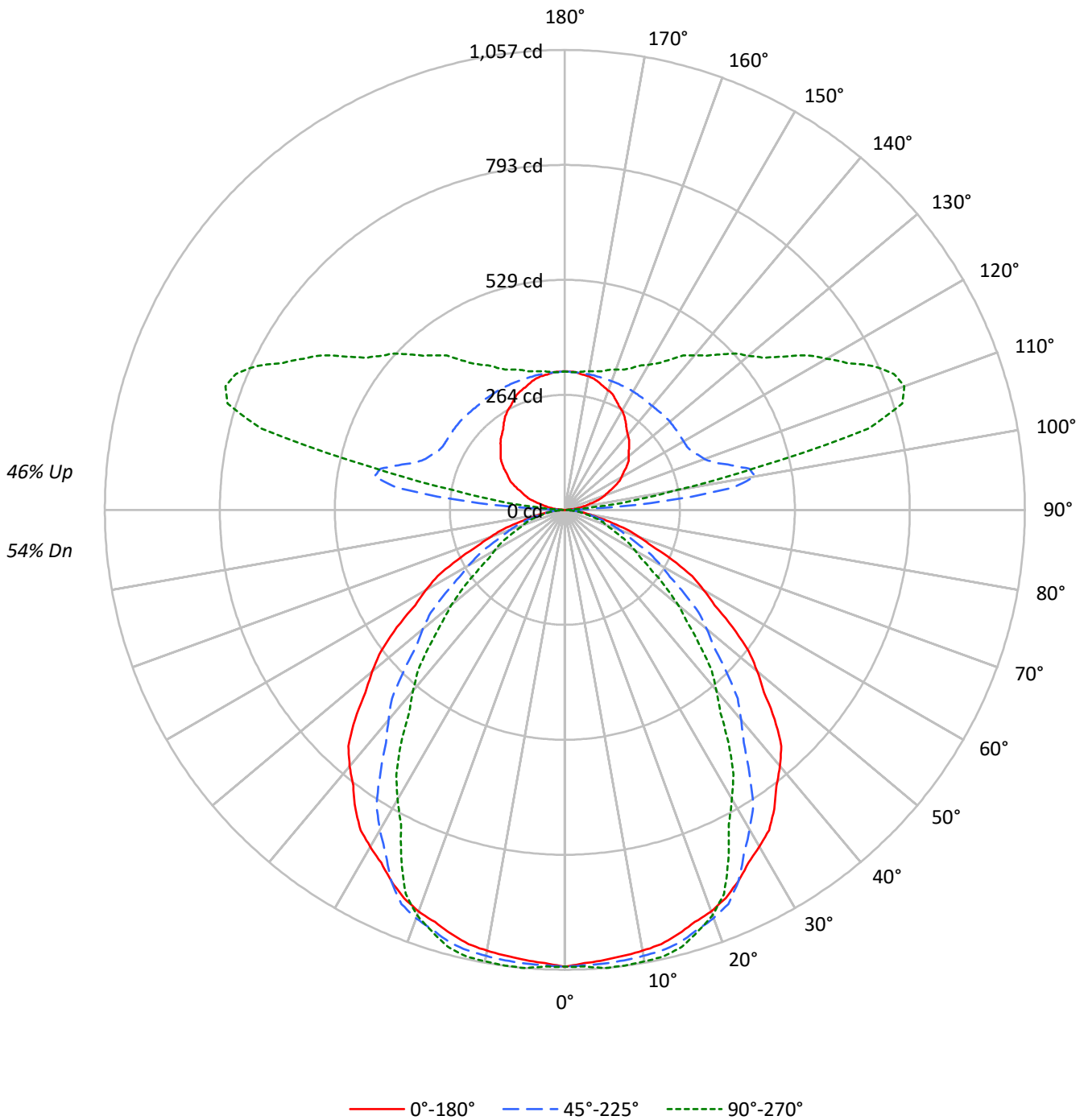
Lumens per Lamp: N/A
Luminaire Lumens: 4304.8 lumens
Efficiency: N/A
Efficacy: 132.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.6
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	0
RCR																		
0	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	95	92	88	92	89	85	83	76	74	72	65	63	61	54	53	52	47
2	91	84	78	73	84	78	73	69	67	64	60	57	55	52	48	46	45	40
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	41	39	35
4	77	66	59	53	71	62	55	50	54	48	44	46	42	39	39	36	34	30
5	71	59	51	46	65	55	48	43	48	43	39	42	37	34	35	32	30	27
6	65	53	45	40	60	50	43	38	44	38	34	38	34	30	32	29	27	24
7	60	48	41	35	56	45	38	33	40	34	30	35	30	27	30	26	24	21
8	56	44	36	31	52	41	35	30	36	31	27	32	27	24	27	24	21	19
9	52	40	33	28	49	38	31	27	34	28	24	29	25	22	25	22	20	17
10	49	37	30	25	46	35	29	24	31	26	22	27	23	20	24	20	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16953	16953	16953
5°	16840	16969	17131
10°	16870	17067	17280
15°	16866	17183	17384
20°	16873	17165	17045
25°	16782	16800	15838
30°	16667	15828	14318
35°	16537	14566	12930
40°	16208	13278	11424
45°	15573	11942	9978
50°	14493	10675	8540
55°	13258	9430	6925
60°	11883	8202	5974
65°	10392	7068	5310
70°	8497	6279	4815
75°	6613	5427	4429
80°	4928	4649	3905
85°	3335	3520	2223

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15573 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.0	2.3
10°-20°	289.7	6.7
20°-30°	426.3	9.9
30°-40°	466.1	10.8
40°-50°	418.1	9.7
50°-60°	311.9	7.2
60°-70°	197.1	4.6
70°-80°	97.6	2.3
80°-90°	23.3	0.5
90°-100°	126.6	2.9
100°-110°	401.7	9.3
110°-120°	393.9	9.2
120°-130°	320.5	7.4
130°-140°	261.3	6.1
140°-150°	203.8	4.7
150°-160°	146.8	3.4
160°-170°	89.7	2.1
170°-180°	30.3	0.7
0°-30°	816.0	19.0
0°-40°	1282.1	29.8
0°-60°	2012.2	46.7
0°-90°	2330.2	54.1
90°-120°	922.2	21.4
90°-150°	1707.8	39.7
90°-180°	1975.0	45.9
0°-180°	4304.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1050	1050	1050	1050	1050	
5°	1039	1056	1047	1048	1057	99
15°	1009	1029	1028	1035	1040	285
25°	942	962	943	904	889	434
35°	839	830	739	675	656	523
45°	682	627	523	458	437	523
55°	471	426	335	263	246	421
65°	272	250	185	149	139	270
75°	106	114	87	73	71	117
85°	18	23	19	13	12	23
90°	0	1	3	3	3	1
95°	17	51	230	85	55	20
105°	70	98	396	754	723	74
115°	125	148	320	665	782	123
125°	173	194	315	521	614	154
135°	209	230	313	448	505	161
145°	244	263	313	387	421	153
155°	278	288	314	345	359	128
165°	303	306	315	327	330	85
175°	317	316	317	319	318	30
180°	318	318	318	318	318	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1050.0	1050.0	1050.0	1050.0	1050.0
2.5°	1042.8	1056.1	1047.6	1048.5	1050.8
5°	1039.0	1055.6	1047.0	1048.2	1057.0
7.5°	1033.8	1050.6	1044.2	1047.8	1056.4
10°	1029.0	1046.6	1041.0	1046.2	1054.0
12.5°	1022.6	1041.0	1037.0	1043.0	1050.8
15°	1009.0	1028.6	1028.0	1035.1	1040.0
17.5°	993.2	1012.8	1011.8	1013.7	1016.0
20°	982.0	1001.6	999.0	992.0	992.0
22.5°	966.0	987.1	980.6	961.5	955.2
25°	942.0	962.5	943.0	903.7	889.0
27.5°	914.0	930.6	891.4	835.5	815.2
30°	894.0	906.7	849.0	787.6	768.0
32.5°	873.2	878.1	805.8	741.9	720.8
35°	839.0	830.2	739.0	674.6	656.0
37.5°	798.6	772.4	674.8	607.3	586.8
40°	769.0	731.9	630.0	562.5	542.0
42.5°	736.2	689.7	587.6	520.1	498.8
45°	682.0	627.3	523.0	457.5	437.0
47.5°	621.0	566.6	462.6	399.2	381.6
50°	577.0	524.2	425.0	361.5	340.0
52.5°	532.2	484.9	388.2	322.9	293.6
55°	471.0	426.0	335.0	262.6	246.0
57.5°	408.0	369.1	286.8	221.1	207.4
60°	368.0	333.8	254.0	198.7	185.0
62.5°	329.6	299.3	222.0	177.9	166.6
65°	272.0	249.5	185.0	148.8	139.0
67.5°	216.0	203.5	153.8	122.1	115.6
70°	180.0	176.1	133.0	106.9	102.0
72.5°	148.8	150.4	113.0	92.5	89.2
75°	106.0	113.8	87.0	73.0	71.0
77.5°	72.2	83.9	64.4	54.0	52.4
80°	53.0	64.7	50.0	42.0	42.0
82.5°	37.0	46.4	35.6	31.6	31.6
85°	18.0	22.9	19.0	13.0	12.0
87.5°	4.8	7.3	3.8	3.0	3.0
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.2	71.0	23.6	16.6
95°	17.0	51.2	230.0	85.3	55.0
97.5°	31.6	66.4	389.6	243.4	149.4
100°	42.0	75.2	444.0	404.7	263.0
102.5°	53.2	84.9	434.4	594.4	455.0
105°	70.0	98.3	396.0	754.2	722.9
107.5°	86.8	113.0	359.4	770.9	813.1
110°	98.0	123.4	341.0	751.7	829.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	109.2	133.0	330.6	718.6	817.9
115°	125.0	148.5	320.0	664.6	781.9
117.5°	140.4	162.7	315.8	612.6	730.9
120°	150.0	171.5	315.0	580.5	694.9
122.5°	159.6	180.3	315.0	554.8	661.3
125°	173.0	193.5	315.0	521.1	613.9
127.5°	184.8	204.5	315.0	495.0	574.1
130°	192.0	212.5	315.0	479.6	550.9
132.5°	199.2	219.7	314.2	467.4	531.8
135°	209.0	229.5	313.0	448.2	505.0
137.5°	218.6	240.1	312.8	429.9	480.6
140°	225.0	246.5	312.0	417.0	463.0
142.5°	233.0	253.7	312.8	404.1	447.0
145°	244.0	262.6	313.0	386.7	421.0
147.5°	255.0	270.8	313.2	371.4	399.4
150°	263.0	275.7	314.0	362.5	385.0
152.5°	269.4	280.5	314.0	355.2	373.8
155°	278.0	287.8	314.0	345.3	359.0
157.5°	287.2	293.8	315.0	339.2	348.6
160°	292.0	297.8	315.0	335.1	343.0
162.5°	296.8	301.1	315.0	331.9	337.4
165°	303.0	305.9	315.0	327.0	330.0
167.5°	308.8	309.6	316.0	323.6	326.2
170°	312.0	312.0	316.0	322.0	323.0
172.5°	313.6	314.4	316.0	320.4	320.6
175°	317.0	316.0	317.0	318.9	318.0
177.5°	318.0	317.2	317.2	318.7	317.2
180°	318.0	318.0	318.0	318.0	318.0



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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	17.27	18.12	18.20	19.07	20.28	13.75	14.61	14.68	15.55	16.77
	3H	18.59	19.36	19.53	20.31	21.54	14.96	15.72	15.90	16.67	17.91
	4H	18.96	19.69	19.92	20.64	21.89	15.41	16.13	16.36	17.08	18.33
	6H	19.17	19.83	20.13	20.79	22.05	15.72	16.39	16.69	17.35	18.61
	8H	19.20	19.83	20.17	20.81	22.07	15.80	16.43	16.77	17.41	18.67
	12H	19.20	19.80	20.17	20.77	22.05	15.81	16.41	16.79	17.38	18.66
4H	2H	17.37	18.09	18.33	19.05	20.30	14.44	15.16	15.40	16.11	17.36
	3H	18.92	19.52	19.89	20.50	21.76	15.82	16.42	16.79	17.41	18.67
	4H	19.42	19.97	20.40	20.95	22.23	16.37	16.92	17.35	17.90	19.18
	6H	19.75	20.23	20.75	21.23	22.51	16.77	17.24	17.77	18.25	19.53
	8H	19.83	20.27	20.83	21.27	22.57	16.88	17.32	17.87	18.31	19.61
	12H	19.85	20.24	20.86	21.26	22.56	16.90	17.30	17.91	18.31	19.61
8H	4H	19.46	19.90	20.45	20.90	22.19	16.70	17.14	17.69	18.13	19.43
	6H	19.90	20.26	20.92	21.30	22.59	17.20	17.56	18.22	18.60	19.90
	8H	20.04	20.36	21.07	21.39	22.70	17.37	17.68	18.39	18.71	20.02
	12H	20.11	20.39	21.14	21.41	22.77	17.43	17.71	18.45	18.72	20.09
12H	4H	19.42	19.82	20.43	20.83	22.13	16.71	17.11	17.72	18.12	19.42
	6H	19.89	20.21	20.91	21.23	22.55	17.27	17.59	18.29	18.61	19.93
	8H	20.05	20.33	21.08	21.35	22.71	17.45	17.73	18.48	18.75	20.11