

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: P854258

Luminaire Tested: SQ2-PW1-050U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854258
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-940-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

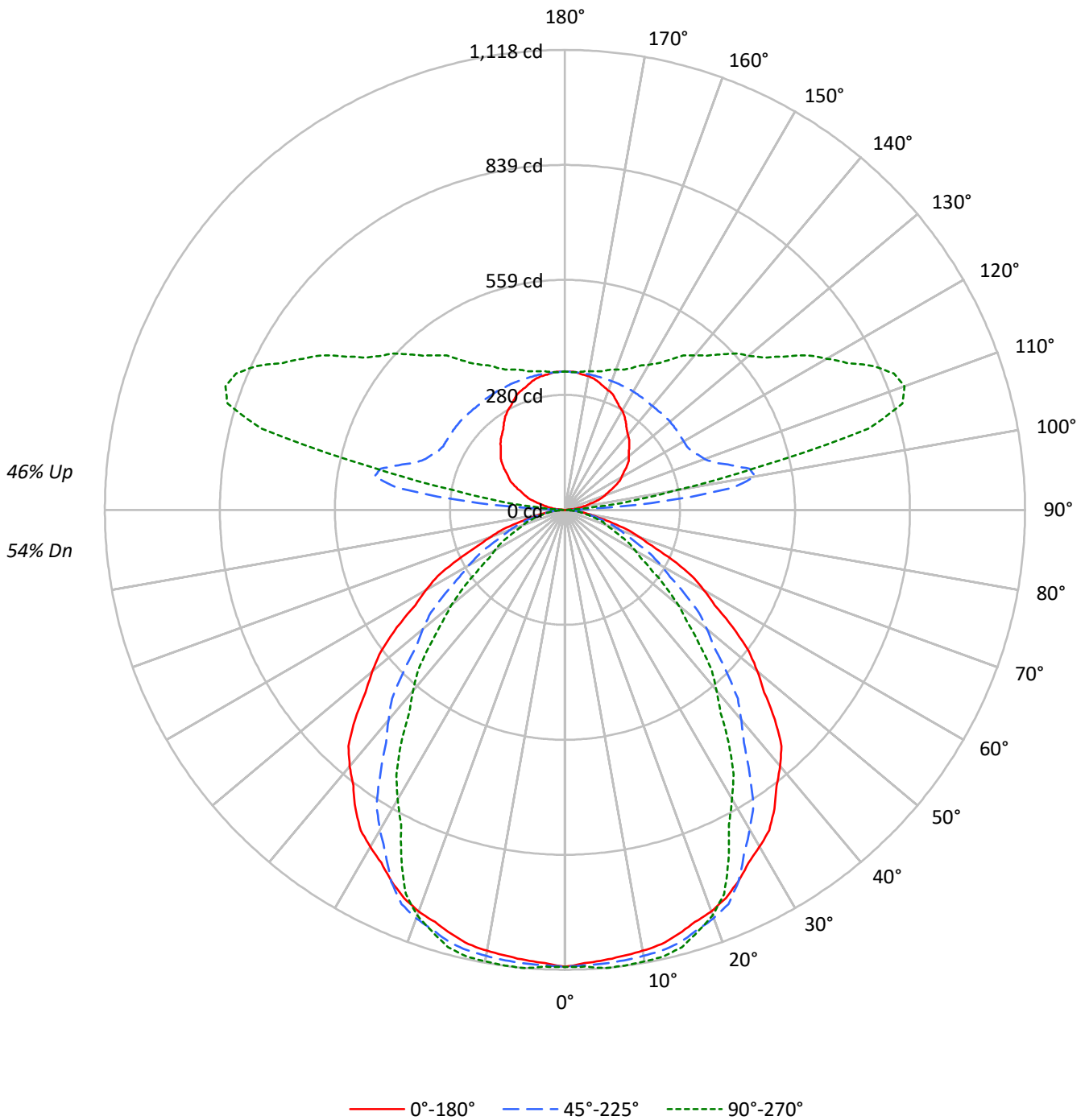
Lumens per Lamp: N/A
Luminaire Lumens: 4553.5 lumens
Efficiency: N/A
Efficacy: 139.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17933	17933	17933
5°	17812	17950	18122
10°	17846	18052	18279
15°	17840	18176	18389
20°	17847	18156	18029
25°	17751	17770	16753
30°	17631	16744	15146
35°	17493	15408	13677
40°	17144	14046	12083
45°	16472	12632	10554
50°	15330	11293	9033
55°	14024	9976	7324
60°	12571	8677	6319
65°	10991	7477	5616
70°	8988	6642	5094
75°	6993	5739	4685
80°	5216	4919	4128
85°	3520	3724	2353

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16472 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.8	2.3
10°-20°	306.4	6.7
20°-30°	451.0	9.9
30°-40°	493.0	10.8
40°-50°	442.3	9.7
50°-60°	329.9	7.2
60°-70°	208.5	4.6
70°-80°	103.3	2.3
80°-90°	24.6	0.5
90°-100°	134.0	2.9
100°-110°	424.9	9.3
110°-120°	416.6	9.2
120°-130°	339.0	7.4
130°-140°	276.4	6.1
140°-150°	215.5	4.7
150°-160°	155.3	3.4
160°-170°	94.9	2.1
170°-180°	32.0	0.7
0°-30°	863.1	19.0
0°-40°	1356.2	29.8
0°-60°	2128.4	46.7
0°-90°	2464.8	54.1
90°-120°	975.5	21.4
90°-150°	1806.5	39.7
90°-180°	2089.0	45.9
0°-180°	4553.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1111	1111	1111	1111	1111	
5°	1099	1117	1108	1109	1118	105
15°	1067	1088	1087	1095	1100	301
25°	996	1018	998	956	940	459
35°	888	878	782	714	694	553
45°	721	664	553	484	462	553
55°	498	451	354	278	260	445
65°	288	264	196	157	147	285
75°	112	120	92	77	75	124
85°	19	24	20	14	13	24
90°	0	1	3	3	3	2
95°	18	54	243	90	58	21
105°	74	104	419	798	765	78
115°	132	157	338	703	827	131
125°	183	205	333	551	649	163
135°	221	243	331	474	534	171
145°	258	278	331	409	445	162
155°	294	304	332	365	380	136
165°	320	324	333	346	349	90
175°	335	334	335	337	336	32
180°	336	336	336	336	336	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1110.7	1110.7	1110.7	1110.7	1110.7
2.5°	1103.1	1117.1	1108.1	1109.0	1111.5
5°	1099.0	1116.6	1107.5	1108.8	1118.1
7.5°	1093.5	1111.3	1104.5	1108.3	1117.4
10°	1088.5	1107.1	1101.1	1106.6	1114.9
12.5°	1081.7	1101.1	1096.9	1103.2	1111.5
15°	1067.3	1088.0	1087.4	1094.9	1100.1
17.5°	1050.6	1071.3	1070.3	1072.2	1074.7
20°	1038.7	1059.4	1056.7	1049.3	1049.3
22.5°	1021.8	1044.2	1037.3	1017.0	1010.4
25°	996.4	1018.1	997.5	955.9	940.4
27.5°	966.8	984.4	942.9	883.8	862.3
30°	945.7	959.1	898.1	833.1	812.4
32.5°	923.7	928.8	852.4	784.8	762.4
35°	887.5	878.2	781.7	713.6	693.9
37.5°	844.7	817.0	713.8	642.4	620.7
40°	813.4	774.1	666.4	595.0	573.3
42.5°	778.7	729.5	621.6	550.2	527.6
45°	721.4	663.5	553.2	484.0	462.2
47.5°	656.9	599.4	489.3	422.3	403.6
50°	610.3	554.5	449.6	382.4	359.6
52.5°	562.9	512.9	410.6	341.6	310.6
55°	498.2	450.6	354.4	277.8	260.2
57.5°	431.6	390.4	303.4	233.9	219.4
60°	389.3	353.1	268.7	210.2	195.7
62.5°	348.6	316.6	234.8	188.2	176.2
65°	287.7	263.9	195.7	157.4	147.0
67.5°	228.5	215.2	162.7	129.1	122.3
70°	190.4	186.3	140.7	113.1	107.9
72.5°	157.4	159.1	119.5	97.9	94.4
75°	112.1	120.4	92.0	77.2	75.1
77.5°	76.4	88.8	68.1	57.1	55.4
80°	56.1	68.5	52.9	44.4	44.4
82.5°	39.1	49.1	37.7	33.4	33.4
85°	19.0	24.2	20.1	13.7	12.7
87.5°	5.1	7.8	4.0	3.2	3.2
90°	0.0	1.0	3.2	3.2	3.2
92.5°	5.9	23.5	75.1	25.0	17.6
95°	18.0	54.2	243.3	90.2	58.2
97.5°	33.4	70.2	412.1	257.5	158.0
100°	44.4	79.6	469.6	428.1	278.2
102.5°	56.3	89.8	459.5	628.7	481.2
105°	74.0	104.0	418.8	797.8	764.7
107.5°	91.8	119.5	380.1	815.4	860.1
110°	103.7	130.5	360.7	795.1	877.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	115.5	140.7	349.7	760.1	865.2
115°	132.2	157.0	338.5	703.0	827.1
117.5°	148.5	172.1	334.0	648.0	773.2
120°	158.7	181.4	333.2	614.1	735.1
122.5°	168.8	190.7	333.2	586.8	699.5
125°	183.0	204.7	333.2	551.2	649.4
127.5°	195.5	216.3	333.2	523.5	607.3
130°	203.1	224.8	333.2	507.3	582.8
132.5°	210.7	232.4	332.3	494.4	562.5
135°	221.1	242.8	331.1	474.1	534.1
137.5°	231.2	254.0	330.8	454.7	508.3
140°	238.0	260.7	330.0	441.1	489.7
142.5°	246.4	268.4	330.8	427.5	472.8
145°	258.1	277.7	331.1	409.1	445.3
147.5°	269.7	286.5	331.3	392.9	422.4
150°	278.2	291.6	332.1	383.4	407.2
152.5°	284.9	296.7	332.1	375.7	395.4
155°	294.0	304.4	332.1	365.2	379.7
157.5°	303.8	310.8	333.2	358.8	368.7
160°	308.8	315.0	333.2	354.5	362.8
162.5°	313.9	318.5	333.2	351.1	356.9
165°	320.5	323.6	333.2	345.9	349.0
167.5°	326.6	327.4	334.2	342.3	345.0
170°	330.0	330.0	334.2	340.6	341.6
172.5°	331.7	332.5	334.2	338.9	339.1
175°	335.3	334.2	335.3	337.4	336.3
177.5°	336.3	335.5	335.5	337.1	335.5
180°	336.3	336.3	336.3	336.3	336.3



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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	17.46	18.32	18.39	19.26	20.48	13.95	14.81	14.88	15.75	16.96
	3H	18.78	19.55	19.73	20.50	21.74	15.15	15.92	16.10	16.87	18.11
	4H	19.16	19.88	20.11	20.84	22.08	15.60	16.32	16.56	17.28	18.53
	6H	19.36	20.03	20.33	20.99	22.25	15.92	16.58	16.88	17.54	18.80
	8H	19.39	20.03	20.37	21.00	22.26	15.99	16.63	16.97	17.60	18.86
	12H	19.39	19.99	20.37	20.96	22.25	16.00	16.61	16.98	17.58	18.86
4H	2H	17.57	18.29	18.53	19.24	20.49	14.63	15.36	15.59	16.31	17.56
	3H	19.11	19.71	20.08	20.70	21.96	16.02	16.62	16.99	17.60	18.87
	4H	19.62	20.17	20.60	21.14	22.43	16.57	17.11	17.54	18.09	19.38
	6H	19.95	20.42	20.94	21.42	22.71	16.97	17.44	17.96	18.44	19.73
	8H	20.03	20.47	21.02	21.46	22.76	17.07	17.51	18.07	18.51	19.81
	12H	20.04	20.44	21.06	21.45	22.75	17.10	17.49	18.11	18.50	19.81
8H	4H	19.66	20.10	20.65	21.09	22.39	16.89	17.33	17.89	18.33	19.62
	6H	20.09	20.46	21.11	21.49	22.79	17.40	17.76	18.41	18.80	20.09
	8H	20.24	20.56	21.26	21.58	22.90	17.56	17.88	18.59	18.90	20.22
	12H	20.30	20.59	21.33	21.60	22.96	17.62	17.90	18.65	18.92	20.28
12H	4H	19.62	20.01	20.63	21.02	22.33	16.91	17.30	17.92	18.31	19.62
	6H	20.08	20.40	21.11	21.43	22.74	17.46	17.78	18.49	18.81	20.12
	8H	20.25	20.53	21.27	21.55	22.91	17.65	17.93	18.68	18.95	20.31