

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: P854923

Luminaire Tested: SQ2-PP3-100U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854923
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-100U-050D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

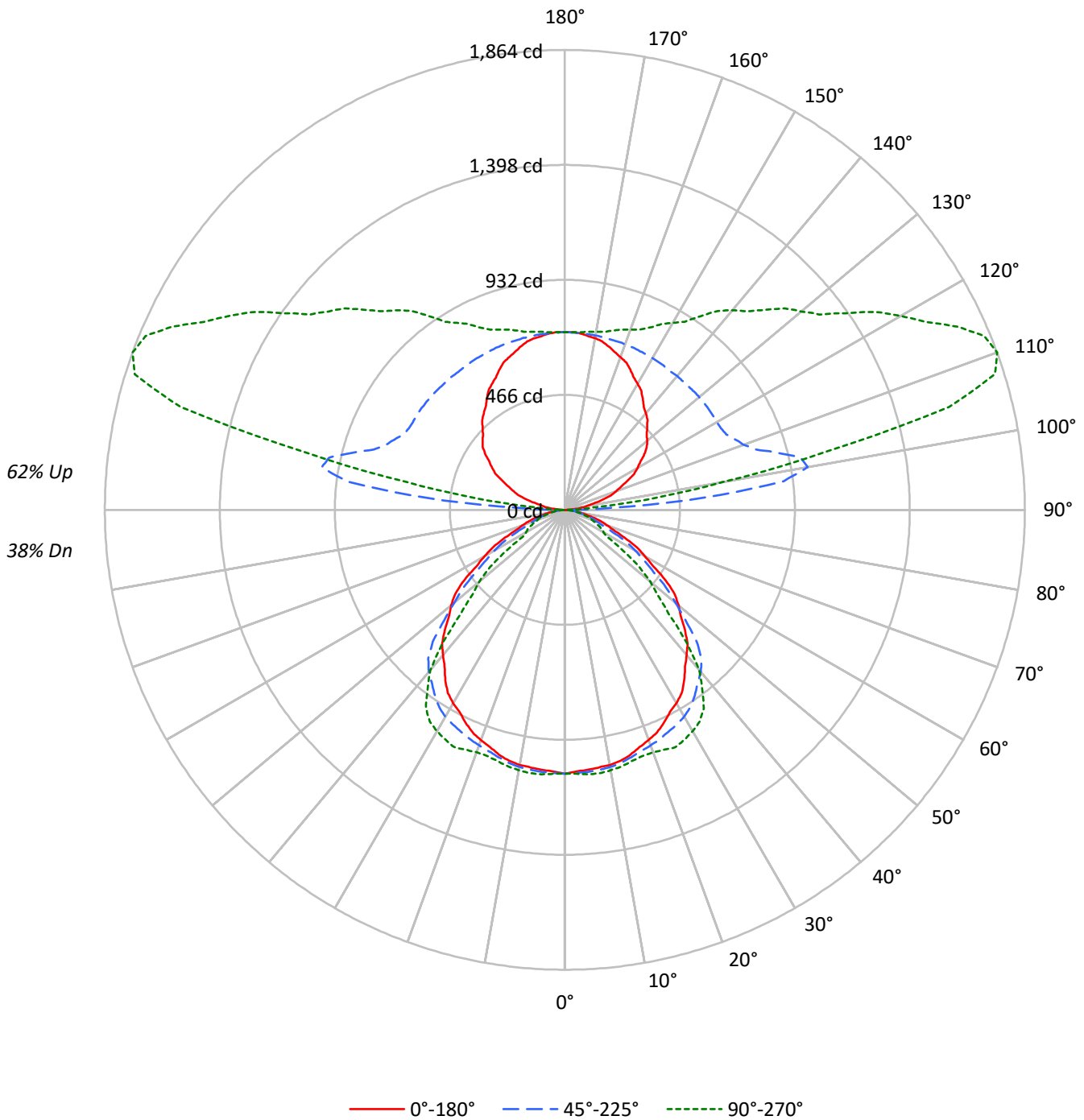
Lumens per Lamp: N/A
Luminaire Lumens: 7176.1 lumens
Efficiency: N/A
Efficacy: 142.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.4
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: P854923

CATALOG NUMBER: SQ2-PP3-100U-050D-830-UNV-STD-W-4

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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	38
1	95	91	88	84	86	83	80	77	68	65	63	53	52	51	40	39	39	32
2	87	80	74	69	79	73	68	64	60	56	53	47	45	43	36	34	33	28
3	80	71	64	58	72	65	59	54	53	49	45	42	39	37	32	30	28	24
4	73	63	55	49	66	57	51	46	47	42	39	38	34	32	29	27	25	21
5	67	56	48	42	61	51	44	39	42	37	33	34	30	27	26	24	22	18
6	62	50	42	37	56	46	39	34	38	33	29	31	27	24	24	21	19	16
7	57	45	38	32	52	41	35	30	34	29	26	28	24	21	22	19	17	14
8	53	41	33	28	48	38	31	26	31	26	23	25	22	19	20	17	15	13
9	49	37	30	25	45	34	28	24	29	24	20	23	20	17	18	16	14	12
10	46	34	27	23	42	31	25	21	26	22	18	21	18	15	17	14	13	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17270	17270	17270
5°	17135	17280	17446
10°	17221	17351	17572
15°	17180	17349	17615
20°	17057	17464	17969
25°	16960	17685	18914
30°	16863	18043	19309
35°	16626	18096	19344
40°	16181	18063	17873
45°	15696	17246	13604
50°	15081	14712	11331
55°	14035	12380	8146
60°	12084	10624	5842
65°	10193	8206	5746
70°	8488	6458	5500
75°	7193	5571	5147
80°	6100	4835	4621
85°	4817	3983	2519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17246 cd/sqm



TEST NUMBER: P854923

CATALOG NUMBER: SQ2-PP3-100U-050D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.8	1.4
10°-20°	294.7	4.1
20°-30°	461.8	6.4
30°-40°	569.6	7.9
40°-50°	536.3	7.5
50°-60°	379.7	5.3
60°-70°	216.4	3.0
70°-80°	107.1	1.5
80°-90°	27.5	0.4
90°-100°	300.7	4.2
100°-110°	909.5	12.7
110°-120°	887.8	12.4
120°-130°	725.5	10.1
130°-140°	592.2	8.3
140°-150°	461.0	6.4
150°-160°	332.3	4.6
160°-170°	203.4	2.8
170°-180°	68.7	1.0
0°-30°	858.4	12.0
0°-40°	1428.0	19.9
0°-60°	2344.1	32.7
0°-90°	2694.9	37.6
90°-120°	2098.0	29.2
90°-150°	3876.7	54.0
90°-180°	4481.0	62.4
0°-180°	7176.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1057	1076	1066	1069	1076	101
15°	1028	1042	1038	1048	1054	290
25°	952	976	993	1033	1062	438
35°	844	867	918	970	981	526
45°	687	739	755	640	596	529
55°	499	528	440	332	289	440
65°	267	281	215	152	150	268
75°	115	128	89	84	82	125
85°	26	24	22	17	14	30
90°	0	2	14	8	7	3
95°	37	118	568	210	132	44
105°	158	222	893	1696	1612	166
115°	281	336	722	1495	1755	278
125°	393	436	712	1180	1389	349
135°	471	521	708	1018	1145	365
145°	550	591	708	876	957	345
155°	627	648	712	785	815	289
165°	686	694	716	743	752	193
175°	718	718	719	724	722	68
180°	720	720	720	720	720	



TEST NUMBER: P854923

CATALOG NUMBER: SQ2-PP3-100U-050D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1069.6	1069.6	1069.6	1069.6	1069.6
2.5°	1061.4	1076.5	1066.9	1068.7	1070.5
5°	1057.2	1075.9	1066.2	1068.7	1076.4
7.5°	1053.1	1072.3	1062.8	1066.9	1076.4
10°	1050.4	1067.0	1058.3	1064.2	1071.8
12.5°	1042.2	1057.9	1050.1	1057.7	1064.6
15°	1027.8	1042.1	1037.9	1048.2	1053.8
17.5°	1008.1	1025.6	1025.5	1040.1	1045.8
20°	992.7	1013.7	1016.4	1034.8	1045.8
22.5°	976.4	1001.0	1005.6	1033.2	1052.2
25°	952.0	976.3	992.7	1033.0	1061.7
27.5°	923.5	947.6	981.4	1026.5	1049.2
30°	904.5	927.7	967.8	1014.6	1035.7
32.5°	881.0	905.1	947.9	998.4	1017.6
35°	843.5	866.6	918.1	970.3	981.4
37.5°	800.3	826.6	884.2	913.3	914.0
40°	767.7	802.0	857.0	862.3	848.0
42.5°	736.0	780.0	819.0	795.2	731.3
45°	687.4	739.4	755.3	640.1	595.8
47.5°	635.6	687.0	661.7	536.8	506.3
50°	600.4	649.0	585.7	479.8	451.1
52.5°	560.6	603.9	517.8	425.2	381.5
55°	498.6	528.5	439.8	331.5	289.4
57.5°	424.0	445.0	376.1	248.9	201.7
60°	374.2	390.9	329.0	204.1	180.9
62.5°	329.0	343.8	280.2	177.3	169.1
65°	266.8	281.2	214.8	151.5	150.4
67.5°	212.3	228.1	164.8	132.3	130.9
70°	179.8	196.4	136.8	118.7	116.5
72.5°	152.6	168.4	116.0	104.2	102.9
75°	115.3	127.5	89.3	83.7	82.5
77.5°	83.7	91.4	66.5	63.5	62.4
80°	65.6	68.9	52.0	50.9	49.7
82.5°	49.3	48.2	39.3	38.2	36.2
85°	26.0	23.7	21.5	16.8	13.6
87.5°	8.1	8.6	6.3	4.3	4.1
90°	0.0	2.3	13.6	7.9	6.8
92.5°	12.7	51.1	183.6	60.8	43.9
95°	37.3	117.9	567.5	209.6	132.3
97.5°	72.1	150.1	894.3	591.8	360.3
100°	93.8	170.0	999.3	966.0	648.8
102.5°	118.3	191.9	977.6	1355.0	1080.1
105°	158.3	222.4	893.0	1695.9	1611.8
107.5°	196.3	257.4	811.6	1729.5	1826.9
110°	221.5	280.2	770.9	1687.1	1864.0



TEST NUMBER: P854923

CATALOG NUMBER: SQ2-PP3-100U-050D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	245.9	302.8	746.5	1615.8	1839.6
115°	281.4	335.6	722.3	1494.6	1755.4
117.5°	316.7	368.0	713.7	1381.0	1648.0
120°	340.2	388.8	710.9	1314.7	1571.1
122.5°	361.9	407.9	710.9	1256.5	1493.4
125°	393.4	436.4	712.1	1180.3	1389.2
127.5°	418.9	463.6	710.9	1122.8	1301.0
130°	435.2	481.7	710.9	1089.9	1251.3
132.5°	449.7	496.9	710.0	1059.8	1208.8
135°	471.4	521.1	707.6	1017.9	1145.0
137.5°	495.6	542.8	707.6	973.1	1091.0
140°	510.9	557.3	707.6	944.1	1055.8
142.5°	526.3	571.0	706.7	917.5	1015.1
145°	550.5	591.3	707.6	875.6	957.4
147.5°	574.7	609.4	708.9	841.1	903.8
150°	590.1	622.1	709.8	821.9	874.9
152.5°	604.6	633.0	710.7	805.4	848.7
155°	627.4	648.3	712.1	785.1	815.0
157.5°	647.2	664.3	713.4	770.2	791.0
160°	658.9	673.4	714.3	761.0	776.5
162.5°	670.7	681.6	715.2	752.9	765.7
165°	686.1	693.9	715.5	742.8	751.7
167.5°	699.2	703.3	716.8	735.0	738.8
170°	706.4	708.7	717.7	731.3	732.4
172.5°	710.9	712.3	717.7	727.7	727.9
175°	717.7	717.7	718.9	724.5	722.3
177.5°	720.9	720.0	719.1	721.8	720.0
180°	720.0	720.0	720.0	720.0	720.0



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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	16.16	16.89	17.22	17.96	19.40	12.55	13.29	13.61	14.35	15.79
	3H	17.24	17.90	18.31	18.97	20.43	13.65	14.31	14.72	15.38	16.84
	4H	17.58	18.20	18.66	19.27	20.74	14.10	14.73	15.19	15.80	17.27
	6H	17.79	18.36	18.88	19.44	20.91	14.44	15.02	15.54	16.09	17.57
	8H	17.83	18.38	18.93	19.47	20.94	14.52	15.07	15.62	16.16	17.63
	12H	17.84	18.36	18.94	19.45	20.94	14.54	15.05	15.64	16.14	17.63
4H	2H	16.25	16.87	17.34	17.94	19.41	13.25	13.87	14.34	14.95	16.41
	3H	17.55	18.06	18.64	19.16	20.64	14.49	15.01	15.59	16.11	17.58
	4H	18.01	18.49	19.12	19.58	21.08	15.04	15.51	16.14	16.60	18.10
	6H	18.35	18.75	19.46	19.86	21.36	15.47	15.88	16.58	16.99	18.48
	8H	18.44	18.82	19.55	19.92	21.43	15.59	15.97	16.70	17.07	18.58
	12H	18.47	18.81	19.59	19.93	21.44	15.61	15.96	16.74	17.07	18.59
8H	4H	18.02	18.40	19.13	19.51	21.02	15.30	15.68	16.41	16.79	18.30
	6H	18.45	18.76	19.58	19.91	21.42	15.84	16.16	16.98	17.30	18.81
	8H	18.61	18.88	19.74	20.01	21.53	16.03	16.30	17.17	17.43	18.96
	12H	18.69	18.93	19.83	20.05	21.62	16.10	16.34	17.24	17.46	19.03
12H	4H	17.98	18.32	19.10	19.44	20.95	15.31	15.65	16.43	16.77	18.28
	6H	18.44	18.71	19.58	19.84	21.37	15.90	16.17	17.03	17.30	18.82
	8H	18.60	18.85	19.75	19.97	21.53	16.10	16.34	17.24	17.46	19.03