

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: P855337

Luminaire Tested: SQ2-PP3-100U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855337
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-840-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

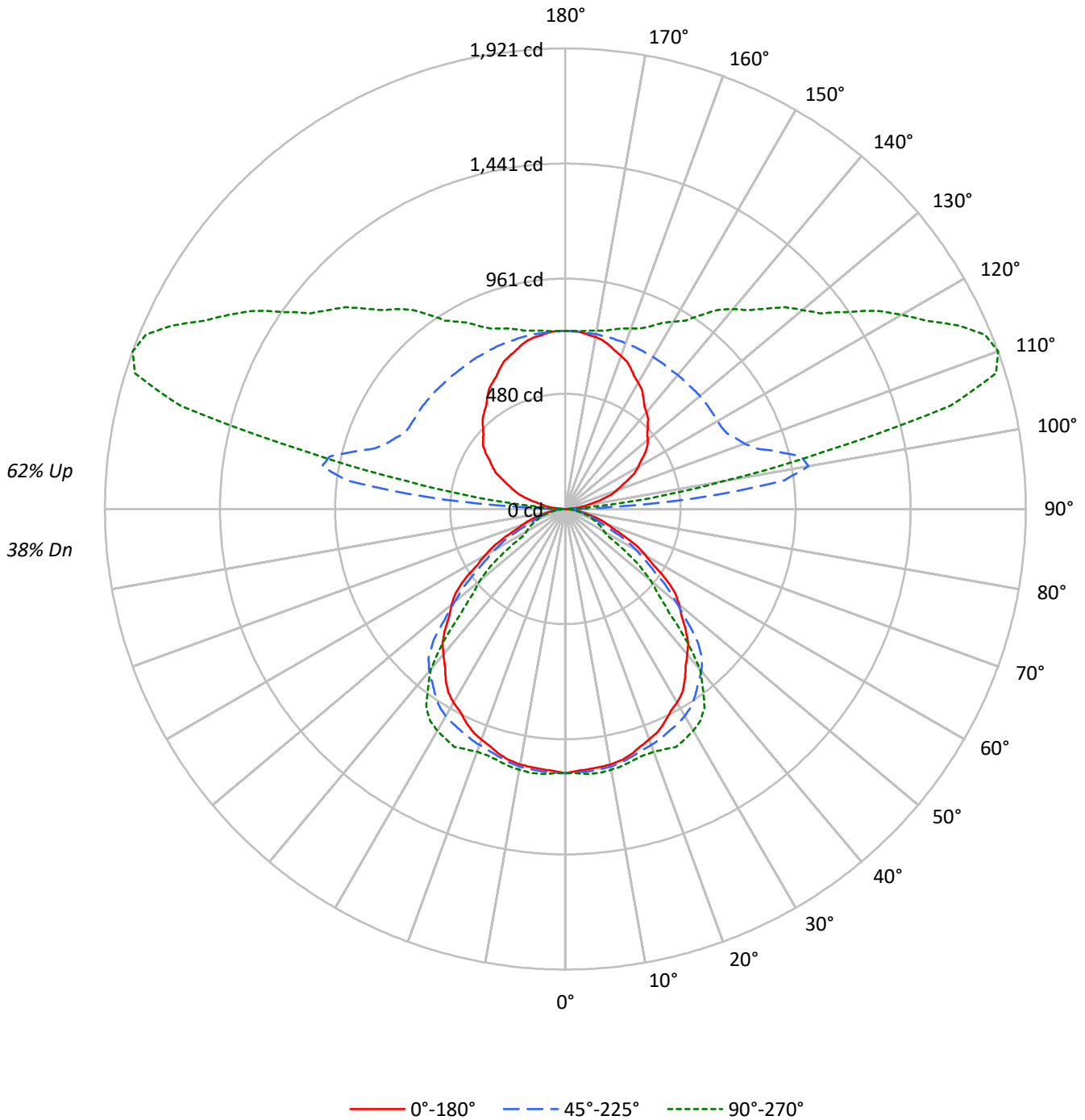
Lumens per Lamp: N/A
Luminaire Lumens: 7396.7 lumens
Efficiency: N/A
Efficacy: 146.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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

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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	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°	17801	17801	17801
5°	17661	17812	17982
10°	17751	17884	18113
15°	17707	17882	18156
20°	17581	18002	18522
25°	17482	18228	19495
30°	17381	18599	19902
35°	17136	18652	19939
40°	16678	18619	18423
45°	16180	17776	14024
50°	15543	15164	11680
55°	14466	12760	8397
60°	12455	10950	6022
65°	10506	8458	5922
70°	8748	6656	5665
75°	7417	5745	5309
80°	6285	4984	4770
85°	4965	4094	2594

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17776 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.0	1.4
10°-20°	303.8	4.1
20°-30°	476.0	6.4
30°-40°	587.1	7.9
40°-50°	552.8	7.5
50°-60°	391.4	5.3
60°-70°	223.0	3.0
70°-80°	110.3	1.5
80°-90°	28.3	0.4
90°-100°	310.0	4.2
100°-110°	937.4	12.7
110°-120°	915.1	12.4
120°-130°	747.8	10.1
130°-140°	610.4	8.3
140°-150°	475.2	6.4
150°-160°	342.6	4.6
160°-170°	209.7	2.8
170°-180°	70.8	1.0
0°-30°	884.8	12.0
0°-40°	1471.9	19.9
0°-60°	2416.1	32.7
0°-90°	2777.8	37.6
90°-120°	2162.5	29.2
90°-150°	3995.9	54.0
90°-180°	4619.0	62.4
0°-180°	7396.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1090	1109	1099	1102	1110	104
15°	1059	1074	1070	1080	1086	299
25°	981	1006	1023	1065	1094	452
35°	869	893	946	1000	1012	542
45°	709	762	778	660	614	545
55°	514	545	453	342	298	453
65°	275	290	221	156	155	276
75°	119	132	92	86	85	129
85°	27	24	22	17	14	31
90°	0	2	14	8	7	3
95°	38	122	585	216	136	46
105°	163	229	920	1748	1661	171
115°	290	346	744	1540	1809	287
125°	405	450	734	1217	1432	360
135°	486	537	729	1049	1180	376
145°	567	610	729	902	987	355
155°	647	668	734	809	840	298
165°	707	715	738	766	775	199
175°	740	740	741	747	744	70
180°	742	742	742	742	742	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1102.5	1102.5	1102.5	1102.5	1102.5
2.5°	1094.1	1109.6	1099.7	1101.5	1103.4
5°	1089.7	1109.0	1099.0	1101.5	1109.5
7.5°	1085.5	1105.3	1095.5	1099.7	1109.5
10°	1082.7	1099.8	1090.8	1096.9	1104.8
12.5°	1074.3	1090.5	1082.4	1090.2	1097.3
15°	1059.3	1074.2	1069.8	1080.4	1086.2
17.5°	1039.1	1057.1	1057.0	1072.1	1078.0
20°	1023.2	1044.9	1047.7	1066.6	1078.0
22.5°	1006.4	1031.7	1036.5	1064.9	1084.5
25°	981.3	1006.3	1023.2	1064.7	1094.3
27.5°	951.9	976.7	1011.6	1058.1	1081.5
30°	932.3	956.2	997.6	1045.8	1067.5
32.5°	908.1	932.9	977.1	1029.0	1048.9
35°	869.4	893.3	946.3	1000.1	1011.6
37.5°	824.9	852.0	911.3	941.4	942.1
40°	791.3	826.6	883.4	888.9	874.1
42.5°	758.7	804.0	844.2	819.6	753.8
45°	708.6	762.2	778.5	659.7	614.2
47.5°	655.2	708.1	682.0	553.3	521.9
50°	618.8	668.9	603.7	494.6	465.0
52.5°	577.8	622.4	533.8	438.3	393.2
55°	513.9	544.7	453.3	341.7	298.3
57.5°	437.0	458.7	387.6	256.5	207.9
60°	385.7	402.9	339.1	210.4	186.5
62.5°	339.1	354.4	288.8	182.7	174.3
65°	275.0	289.8	221.4	156.2	155.0
67.5°	218.9	235.1	169.9	136.4	135.0
70°	185.3	202.4	141.0	122.4	120.0
72.5°	157.3	173.5	119.6	107.4	106.1
75°	118.9	131.5	92.1	86.2	85.1
77.5°	86.2	94.2	68.5	65.5	64.3
80°	67.6	71.0	53.6	52.4	51.3
82.5°	50.8	49.6	40.6	39.4	37.3
85°	26.8	24.5	22.1	17.4	14.0
87.5°	8.4	8.9	6.5	4.4	4.2
90°	0.0	2.3	14.0	8.2	7.0
92.5°	13.1	52.7	189.3	62.7	45.2
95°	38.5	121.6	584.9	216.1	136.4
97.5°	74.4	154.8	921.8	610.0	371.4
100°	96.7	175.3	1030.0	995.7	668.7
102.5°	121.9	197.8	1007.6	1396.6	1113.3
105°	163.2	229.2	920.4	1748.0	1661.4
107.5°	202.3	265.4	836.5	1782.7	1883.1
110°	228.3	288.8	794.6	1739.0	1921.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	253.5	312.1	769.4	1665.5	1896.1
115°	290.1	345.9	744.5	1540.5	1809.4
117.5°	326.4	379.3	735.6	1423.4	1698.7
120°	350.7	400.8	732.8	1355.1	1619.4
122.5°	373.0	420.5	732.8	1295.1	1539.3
125°	405.4	449.8	734.0	1216.6	1431.9
127.5°	431.8	477.8	732.8	1157.4	1341.0
130°	448.6	496.5	732.8	1123.4	1289.7
132.5°	463.5	512.2	731.9	1092.3	1245.9
135°	485.9	537.1	729.3	1049.2	1180.2
137.5°	510.8	559.5	729.3	1003.1	1124.5
140°	526.6	574.4	729.3	973.1	1088.3
142.5°	542.5	588.5	728.4	945.7	1046.3
145°	567.4	609.5	729.3	902.5	986.9
147.5°	592.4	628.2	730.7	866.9	931.6
150°	608.2	641.2	731.6	847.1	901.8
152.5°	623.1	652.5	732.6	830.1	874.8
155°	646.7	668.2	734.0	809.3	840.0
157.5°	667.1	684.7	735.4	793.9	815.3
160°	679.2	694.1	736.3	784.4	800.4
162.5°	691.3	702.5	737.2	776.0	789.2
165°	707.2	715.2	737.5	765.7	774.8
167.5°	720.7	724.9	738.9	757.6	761.5
170°	728.1	730.5	739.8	753.8	754.9
172.5°	732.8	734.2	739.8	750.1	750.3
175°	739.8	739.8	741.0	746.8	744.5
177.5°	743.1	742.1	741.2	744.0	742.1
180°	742.1	742.1	742.1	742.1	742.1



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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	16.26	17.00	17.32	18.06	19.50	12.66	13.40	13.72	14.46	15.90
	3H	17.35	18.00	18.42	19.08	20.53	13.75	14.41	14.82	15.48	16.94
	4H	17.68	18.31	18.77	19.38	20.84	14.21	14.83	15.29	15.91	17.37
	6H	17.89	18.47	18.98	19.54	21.02	14.55	15.12	15.64	16.20	17.68
	8H	17.94	18.48	19.03	19.57	21.05	14.63	15.18	15.73	16.27	17.74
	12H	17.95	18.47	19.05	19.55	21.05	14.64	15.16	15.74	16.24	17.74
4H	2H	16.35	16.98	17.44	18.05	19.52	13.35	13.98	14.45	15.05	16.52
	3H	17.65	18.17	18.75	19.27	20.75	14.59	15.11	15.69	16.21	17.69
	4H	18.12	18.59	19.22	19.68	21.18	15.14	15.62	16.25	16.71	18.21
	6H	18.45	18.86	19.56	19.97	21.46	15.58	15.98	16.69	17.10	18.59
	8H	18.54	18.92	19.65	20.03	21.53	15.70	16.08	16.81	17.18	18.69
	12H	18.57	18.92	19.70	20.03	21.55	15.72	16.06	16.85	17.18	18.69
8H	4H	18.13	18.51	19.24	19.61	21.12	15.41	15.79	16.52	16.89	18.40
	6H	18.56	18.87	19.69	20.02	21.52	15.95	16.26	17.08	17.41	18.91
	8H	18.71	18.99	19.85	20.11	21.64	16.14	16.41	17.27	17.54	19.06
	12H	18.79	19.04	19.93	20.16	21.72	16.20	16.45	17.34	17.57	19.13
12H	4H	18.08	18.43	19.21	19.54	21.06	15.41	15.75	16.54	16.87	18.38
	6H	18.54	18.82	19.68	19.95	21.47	16.00	16.28	17.14	17.40	18.93
	8H	18.71	18.95	19.85	20.08	21.64	16.21	16.45	17.35	17.57	19.13