

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:

Luminaire Tested: SQ4-F-050U-100D-927-1D-UNV-STD-W-4

Issue Date: 8/1/2024

Test Information

Test Method: LM-79-2019
Report Number:
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G3-1910-536-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-F-050U-100D-927-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

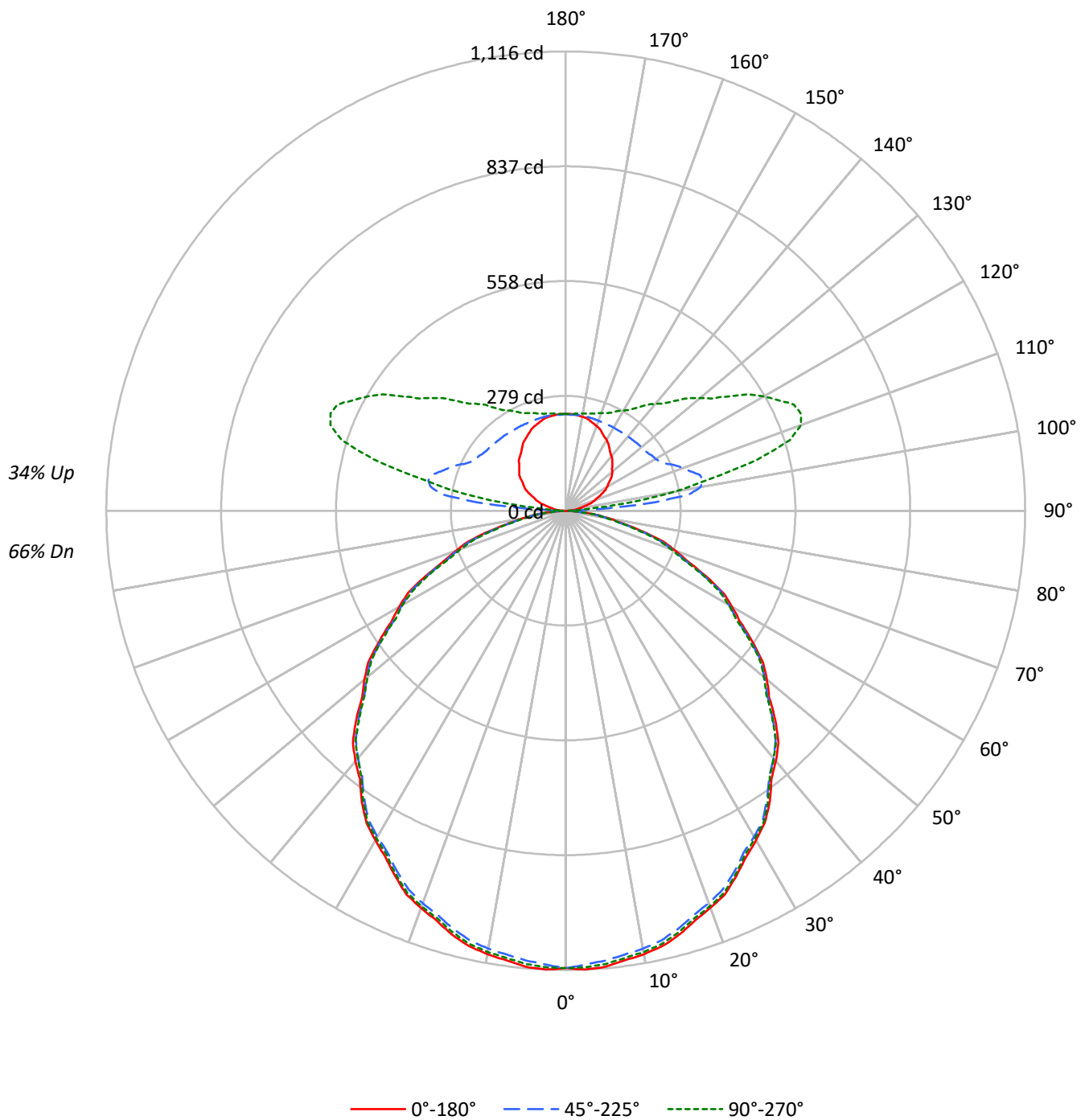
Lumens per Lamp: N/A
Luminaire Lumens: 4566.9 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45.1
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71
1	101	97	93	89	95	91	88	85	81	79	76	72	70	68	63	61	60
2	92	85	78	73	87	80	74	69	71	67	63	63	59	57	55	53	51
3	84	74	67	61	79	70	63	58	63	57	53	55	51	48	49	46	43
4	77	66	58	51	72	62	55	49	56	50	45	49	45	41	44	40	37
5	71	59	50	44	66	56	48	42	50	44	39	44	39	35	39	35	32
6	65	53	44	38	61	50	42	37	45	39	34	40	35	31	36	31	28
7	60	48	39	34	57	45	38	32	41	34	30	36	31	27	32	28	25
8	56	43	35	30	53	41	34	29	37	31	27	33	28	24	30	26	22
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20
10	49	36	29	24	46	35	28	23	31	26	21	28	23	20	25	21	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10257	10257	10257
5°	10303	10162	10239
10°	10251	10123	10200
15°	10189	10050	10130
20°	10083	9964	10046
25°	9973	9857	9935
30°	9852	9747	9796
35°	9729	9609	9659
40°	9567	9457	9465
45°	9398	9269	9239
50°	9156	9047	9024
55°	8886	8787	8726
60°	8617	8462	8435
65°	8195	8012	7947
70°	7615	7432	7286
75°	6802	6584	6445
80°	5595	5393	5148
85°	3313	3631	3716

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9398 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.9	2.3
10°-20°	298.8	6.5
20°-30°	448.7	9.8
30°-40°	535.5	11.7
40°-50°	548.9	12.0
50°-60°	488.8	10.7
60°-70°	364.4	8.0
70°-80°	197.3	4.3
80°-90°	45.8	1.0
90°-100°	112.8	2.5
100°-110°	306.3	6.7
110°-120°	315.0	6.9
120°-130°	251.8	5.5
130°-140°	197.9	4.3
140°-150°	151.7	3.3
150°-160°	109.1	2.4
160°-170°	66.7	1.5
170°-180°	22.5	0.5
0°-30°	852.4	18.7
0°-40°	1388.0	30.4
0°-60°	2425.6	53.1
0°-90°	3033.1	66.4
90°-120°	734.1	16.1
90°-150°	1335.5	29.2
90°-180°	1534.0	33.6
0°-180°	4566.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1112	1112	1112	1112	1112	
5°	1112	1110	1097	1107	1106	105
15°	1067	1063	1052	1061	1061	301
25°	980	978	968	974	976	451
35°	864	860	853	855	858	539
45°	720	717	710	707	708	554
55°	552	553	546	541	542	494
65°	375	374	367	363	364	371
75°	191	188	185	181	181	203
85°	31	34	34	35	35	44
90°	1	3	5	7	7	2
95°	17	62	196	86	57	18
105°	54	85	337	513	483	58
115°	97	117	270	536	611	95
125°	133	151	244	411	485	118
135°	160	178	237	335	378	124
145°	185	198	234	284	306	116
155°	209	217	233	256	263	96
165°	227	230	233	243	244	64
175°	235	236	234	237	236	22
180°	235	235	235	235	235	

TEST NUMBER:

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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°	1116.0	1113.6	1103.8	1111.7	1110.5
5°	1112.5	1110.3	1097.2	1107.1	1105.6
7.5°	1102.1	1099.9	1088.4	1097.5	1096.2
10°	1094.2	1091.9	1080.5	1089.6	1088.8
12.5°	1083.8	1081.6	1070.1	1079.2	1078.5
15°	1066.7	1063.0	1052.2	1060.6	1060.6
17.5°	1044.1	1041.3	1031.3	1038.3	1038.5
20°	1027.0	1024.8	1014.8	1022.5	1023.2
22.5°	1009.9	1007.7	996.5	1003.6	1004.9
25°	979.7	977.5	968.3	973.7	975.9
27.5°	948.6	945.3	936.2	941.0	942.6
30°	924.8	923.3	914.9	917.2	919.5
32.5°	899.8	898.3	891.1	892.2	896.3
35°	863.8	860.0	853.1	854.7	857.6
37.5°	821.2	819.4	812.6	811.8	814.6
40°	794.3	791.3	785.2	783.7	785.9
42.5°	765.0	762.0	754.6	753.2	756.0
45°	720.3	716.6	710.4	706.6	708.1
47.5°	670.2	670.2	663.8	659.5	661.7
50°	637.9	637.9	630.3	626.5	628.7
52.5°	604.3	604.9	596.7	594.7	593.9
55°	552.4	553.2	546.3	541.0	542.5
57.5°	502.4	500.7	492.8	489.3	490.0
60°	467.0	464.7	458.6	453.3	457.1
62.5°	431.0	429.9	423.8	417.8	417.4
65°	375.4	373.9	367.0	363.2	364.0
67.5°	320.2	318.4	312.1	306.6	308.6
70°	282.3	282.3	275.5	272.4	270.1
72.5°	247.5	244.5	239.4	235.1	233.5
75°	190.8	188.5	184.7	180.8	180.8
77.5°	138.9	136.9	134.4	131.8	131.1
80°	105.3	104.6	101.5	100.6	96.9
82.5°	74.2	74.0	72.2	70.2	70.0
85°	31.3	34.3	34.3	35.1	35.1
87.5°	5.6	9.7	9.6	8.7	8.7
90°	0.8	3.0	5.3	6.8	6.8
92.5°	6.8	30.9	53.6	23.0	19.5
95°	16.6	61.7	196.4	85.5	57.4
97.5°	27.5	68.1	301.1	234.2	164.5
100°	34.7	72.4	333.1	337.7	272.7
102.5°	42.0	76.7	341.6	417.6	360.3
105°	54.4	84.7	336.9	512.9	482.7
107.5°	67.2	94.0	317.4	562.2	570.6
110°	76.3	100.7	302.9	571.8	608.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	84.1	107.3	288.4	563.8	618.3
115°	96.7	117.4	269.7	536.5	611.1
117.5°	108.5	128.3	257.7	497.7	581.8
120°	116.3	135.5	252.3	471.7	555.2
122.5°	123.0	142.2	248.7	445.7	526.2
125°	132.9	151.4	244.0	411.1	484.9
127.5°	141.9	160.2	241.4	384.8	448.2
130°	147.3	165.0	240.2	368.4	425.2
132.5°	152.7	170.5	239.0	354.3	404.7
135°	160.1	177.9	237.2	334.8	377.7
137.5°	168.1	184.2	236.3	317.6	353.6
140°	173.0	188.5	235.7	306.6	339.1
142.5°	177.8	192.1	235.1	298.1	325.2
145°	185.1	198.3	234.2	284.5	305.9
147.5°	193.2	204.6	233.4	273.8	290.6
150°	198.7	208.3	233.4	267.7	281.0
152.5°	202.9	211.3	232.8	262.2	273.1
155°	209.2	216.6	232.6	255.5	262.9
157.5°	215.4	221.2	232.6	250.9	256.5
160°	219.0	224.2	232.6	247.8	252.3
162.5°	222.7	226.7	233.2	245.4	248.7
165°	226.6	229.6	233.4	243.2	244.0
167.5°	230.7	232.2	234.2	240.7	241.3
170°	231.9	233.4	234.2	239.4	239.4
172.5°	233.1	234.0	234.2	238.2	238.2
175°	234.9	235.6	234.2	237.2	236.4
177.5°	235.5	235.5	233.7	236.1	234.9
180°	234.9	234.9	234.9	234.9	234.9

(END OF REPORT)