

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

(formerly Eaton)

Brand: CORELITE

Report Number: P519940

Luminaire Tested: **SQ4-F-050U-100D-840-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G3-1910-536-19)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-050U-100D-840-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

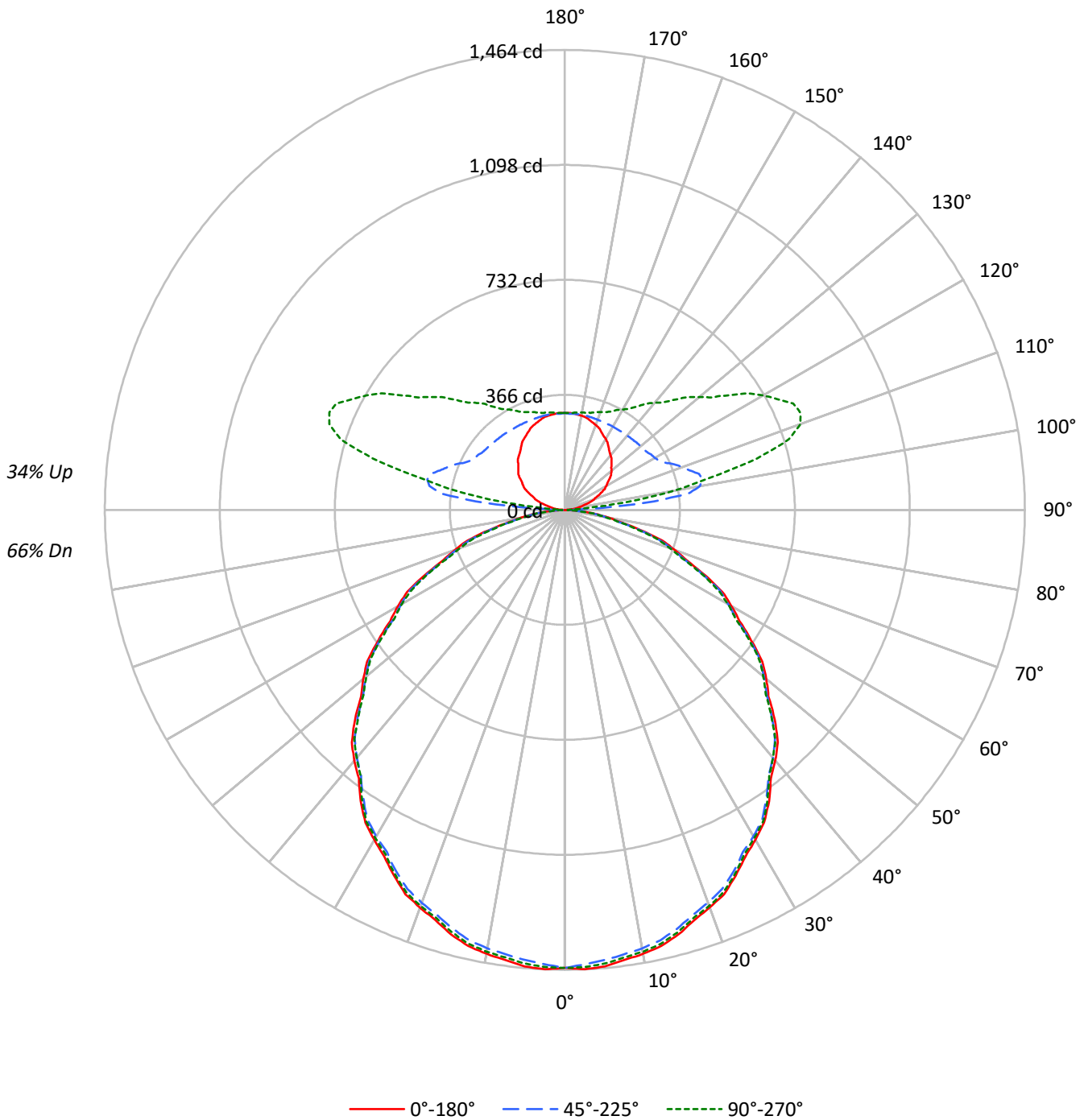
Lumens per Lamp: N/A
Luminaire Lumens: 5990.3 lumens
Efficiency: N/A
Efficacy: 132.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66
1	101	97	93	89	95	91	88	85	81	79	76	72	70	68	63	61	60	56
2	92	85	78	73	87	80	74	69	71	67	63	63	59	57	55	53	51	47
3	84	74	67	61	79	70	63	58	63	57	53	55	51	48	49	46	43	39
4	77	66	58	51	72	62	55	49	56	50	45	49	45	41	44	40	37	34
5	71	59	50	44	66	56	48	42	50	44	39	44	39	35	39	35	32	29
6	65	53	44	38	61	50	42	37	45	39	34	40	35	31	36	31	28	26
7	60	48	39	34	57	45	38	32	41	34	30	36	31	27	32	28	25	23
8	56	43	35	30	53	41	34	29	37	31	27	33	28	24	30	26	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	26	21	28	23	20	25	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13454	13454	13454
5°	13514	13329	13431
10°	13445	13276	13380
15°	13364	13182	13287
20°	13225	13069	13177
25°	13081	12929	13030
30°	12923	12784	12847
35°	12760	12602	12670
40°	12547	12404	12416
45°	12326	12158	12118
50°	12010	11865	11837
55°	11655	11527	11446
60°	11302	11097	11060
65°	10750	10507	10422
70°	9989	9746	9557
75°	8919	8634	8456
80°	7337	7072	6753
85°	4340	4774	4880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.6	2.3
10°-20°	391.9	6.5
20°-30°	588.6	9.8
30°-40°	702.4	11.7
40°-50°	719.9	12.0
50°-60°	641.1	10.7
60°-70°	477.9	8.0
70°-80°	258.8	4.3
80°-90°	60.1	1.0
90°-100°	147.9	2.5
100°-110°	401.8	6.7
110°-120°	413.2	6.9
120°-130°	330.3	5.5
130°-140°	259.6	4.3
140°-150°	199.0	3.3
150°-160°	143.1	2.4
160°-170°	87.5	1.5
170°-180°	29.5	0.5
0°-30°	1118.1	18.7
0°-40°	1820.5	30.4
0°-60°	3181.5	53.1
0°-90°	3978.3	66.4
90°-120°	963.0	16.1
90°-150°	1751.9	29.2
90°-180°	2012.0	33.6
0°-180°	5990.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1458	1458	1458	1458	1458	
5°	1459	1456	1439	1452	1450	138
15°	1399	1394	1380	1391	1391	394
25°	1285	1282	1270	1277	1280	592
35°	1133	1128	1119	1121	1125	707
45°	945	940	932	927	929	727
55°	725	726	717	710	712	649
65°	492	490	481	476	477	487
75°	250	247	242	237	237	266
85°	41	45	45	46	46	57
90°	1	4	7	9	9	3
95°	22	81	258	112	75	23
105°	71	111	442	673	633	76
115°	127	154	354	704	802	125
125°	174	199	320	539	636	155
135°	210	233	311	439	496	162
145°	243	260	307	373	401	152
155°	274	284	305	335	345	127
165°	297	301	306	319	320	84
175°	308	309	307	311	310	29
180°	308	308	308	308	308	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1458.2	1458.2	1458.2	1458.2	1458.2
2.5°	1463.7	1460.7	1447.8	1458.1	1456.5
5°	1459.2	1456.2	1439.2	1452.1	1450.2
7.5°	1445.5	1442.6	1427.6	1439.5	1437.8
10°	1435.1	1432.2	1417.1	1429.1	1428.2
12.5°	1421.5	1418.6	1403.5	1415.5	1414.5
15°	1399.1	1394.2	1380.1	1391.1	1391.1
17.5°	1369.5	1365.7	1352.7	1361.9	1362.1
20°	1347.0	1344.1	1331.1	1341.1	1342.1
22.5°	1324.6	1321.8	1307.0	1316.3	1318.1
25°	1285.0	1282.1	1270.0	1277.1	1280.0
27.5°	1244.2	1239.9	1227.9	1234.3	1236.3
30°	1213.0	1211.0	1200.0	1203.1	1205.9
32.5°	1180.2	1178.2	1168.8	1170.3	1175.5
35°	1132.9	1128.1	1118.9	1121.0	1124.9
37.5°	1077.0	1074.7	1065.8	1064.7	1068.4
40°	1041.8	1037.9	1029.9	1027.9	1030.9
42.5°	1003.4	999.4	989.8	987.9	991.6
45°	944.7	939.9	931.8	926.8	928.7
47.5°	879.1	879.1	870.7	865.0	867.9
50°	836.7	836.7	826.6	821.7	824.7
52.5°	792.7	793.5	782.7	780.0	779.0
55°	724.6	725.6	716.6	709.6	711.6
57.5°	658.9	656.8	646.3	641.8	642.7
60°	612.5	609.6	601.4	594.6	599.4
62.5°	565.3	563.9	555.9	548.0	547.4
65°	492.4	490.5	481.3	476.4	477.4
67.5°	419.9	417.6	409.3	402.2	404.8
70°	370.3	370.3	361.3	357.2	354.3
72.5°	324.7	320.7	314.1	308.4	306.3
75°	250.2	247.3	242.2	237.2	237.2
77.5°	182.1	179.6	176.4	172.9	171.9
80°	138.1	137.1	133.1	132.0	127.1
82.5°	97.3	97.1	94.7	92.0	91.8
85°	41.0	45.0	45.1	46.1	46.1
87.5°	7.4	12.7	12.6	11.4	11.4
90°	1.0	3.9	7.0	8.9	8.9
92.5°	8.9	40.5	70.4	30.2	25.6
95°	21.8	80.9	257.6	112.2	75.3
97.5°	36.1	89.4	395.0	307.2	215.8
100°	45.5	95.0	437.0	443.0	357.7
102.5°	55.1	100.6	448.1	547.8	472.6
105°	71.3	111.1	441.9	672.9	633.1
107.5°	88.2	123.2	416.4	737.4	748.4
110°	100.1	132.1	397.3	750.1	797.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	110.4	140.8	378.3	739.6	811.1
115°	126.8	154.0	353.8	703.7	801.6
117.5°	142.3	168.3	338.1	652.8	763.1
120°	152.6	177.8	330.9	618.8	728.2
122.5°	161.3	186.5	326.2	584.7	690.2
125°	174.4	198.6	320.0	539.2	636.1
127.5°	186.1	210.1	316.7	504.9	588.0
130°	193.2	216.5	315.1	483.2	557.9
132.5°	200.4	223.6	313.5	464.8	530.9
135°	210.1	233.3	311.2	439.2	495.5
137.5°	220.6	241.7	309.9	416.7	463.9
140°	226.9	247.3	309.1	402.2	444.9
142.5°	233.3	252.0	308.3	391.0	426.7
145°	242.8	260.2	307.1	373.2	401.2
147.5°	253.5	268.4	306.2	359.2	381.2
150°	260.6	273.2	306.2	351.1	368.6
152.5°	266.1	277.2	305.4	343.9	358.3
155°	274.5	284.2	305.2	335.1	344.8
157.5°	282.6	290.2	305.2	329.1	336.5
160°	287.3	294.1	305.2	325.1	330.9
162.5°	292.1	297.3	306.0	322.0	326.2
165°	297.2	301.2	306.2	319.1	320.0
167.5°	302.6	304.5	307.1	315.7	316.5
170°	304.2	306.2	307.1	314.1	314.1
172.5°	305.8	306.9	307.1	312.5	312.5
175°	308.1	309.1	307.1	311.1	310.1
177.5°	308.9	308.9	306.6	309.7	308.1
180°	308.1	308.1	308.1	308.1	308.1

(END OF REPORT)