

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: P855141

Luminaire Tested: SQ2-PP3-050U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855141
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-050U-075D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

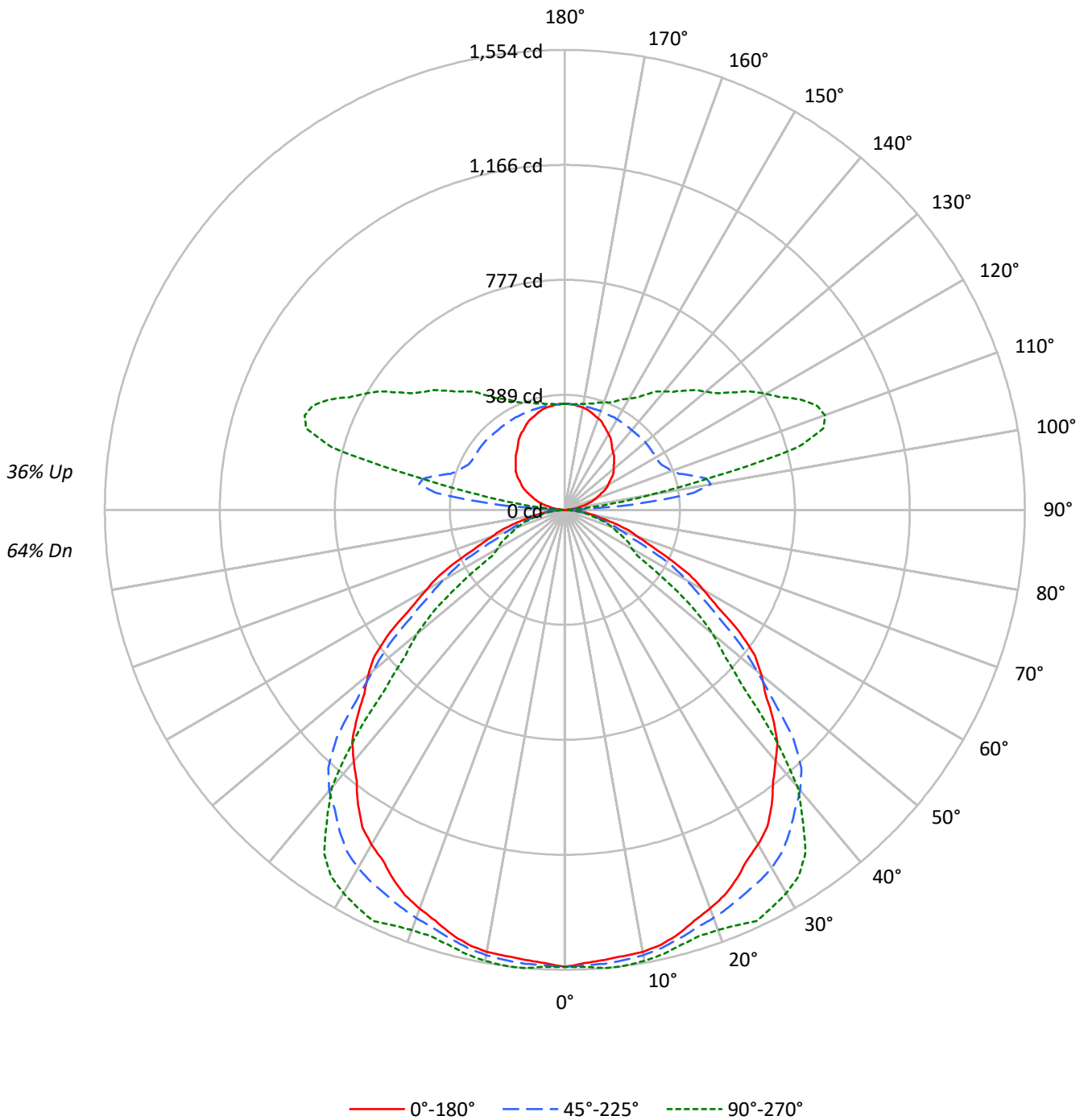
Lumens per Lamp: N/A
Luminaire Lumens: 6114.2 lumens
Efficiency: N/A
Efficacy: 147.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 41.5
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									20
RC	80									50									30									10									0									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR	0	110	110	110	110	104	104	104	104	91	91	91	79	79	79	69	69	69	69	69	69	69	69	69	69	69	69	69	69	64																
	1	102	97	94	90	95	92	88	86	81	78	76	71	69	68	62	61	59	59	59	59	59	59	59	59	59	59	59	59	55																
	2	93	86	80	75	87	81	76	71	72	68	64	63	60	57	55	53	51	51	51	51	51	51	51	51	51	51	51	51	47																
	3	85	76	69	63	80	72	65	60	64	59	55	56	52	49	49	47	44	44	44	44	44	44	44	44	44	44	44	44	41																
	4	78	68	60	54	73	64	57	52	57	51	47	50	46	43	44	41	38	38	38	38	38	38	38	38	38	38	38	38	35																
	5	72	61	52	47	67	57	50	45	51	45	41	46	41	37	40	37	34	34	34	34	34	34	34	34	34	34	34	34	31																
	6	67	54	46	41	62	52	44	39	46	40	36	41	37	33	37	33	30	30	30	30	30	30	30	30	30	30	30	30	27																
	7	62	49	41	36	58	47	40	34	42	36	32	38	33	29	33	30	27	27	27	27	27	27	27	27	27	27	27	27	24																
	8	57	45	37	32	54	43	36	31	38	33	28	34	30	26	31	27	24	24	24	24	24	24	24	24	24	24	24	24	22																
	9	53	41	34	29	50	39	32	28	35	30	26	32	27	24	28	24	22	22	22	22	22	22	22	22	22	22	22	22	20																
	10	50	38	31	26	47	36	29	25	33	27	23	29	25	21	26	22	20	20	20	20	20	20	20	20	20	20	20	20	18																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24936	24936	24936
5°	24739	24951	25188
10°	24866	25053	25374
15°	24806	25051	25432
20°	24629	25218	25947
25°	24488	25536	27310
30°	24350	26053	27880
35°	24005	26128	27932
40°	23364	26083	25804
45°	22665	24900	19644
50°	21775	21243	16362
55°	20268	17878	11764
60°	17450	15342	8435
65°	14716	11851	8298
70°	12255	9328	7940
75°	10387	8047	7436
80°	8805	6983	6685
85°	6966	5743	3631

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 24900 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.0	2.4
10°-20°	425.6	7.0
20°-30°	666.7	10.9
30°-40°	822.5	13.5
40°-50°	774.4	12.7
50°-60°	548.3	9.0
60°-70°	312.4	5.1
70°-80°	154.6	2.5
80°-90°	38.2	0.6
90°-100°	142.7	2.3
100°-110°	452.5	7.4
110°-120°	443.7	7.3
120°-130°	361.1	5.9
130°-140°	294.4	4.8
140°-150°	229.5	3.8
150°-160°	165.4	2.7
160°-170°	101.0	1.7
170°-180°	34.1	0.6
0°-30°	1239.4	20.3
0°-40°	2061.9	33.7
0°-60°	3384.6	55.4
0°-90°	3889.8	63.6
90°-120°	1038.9	17.0
90°-150°	1923.8	31.5
90°-180°	2224.0	36.4
0°-180°	6114.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1544	1544	1544	1544	1544	
5°	1526	1554	1540	1543	1554	145
15°	1484	1505	1499	1514	1522	418
25°	1375	1410	1433	1491	1533	633
35°	1218	1251	1326	1401	1417	760
45°	993	1068	1090	924	860	764
55°	720	763	635	479	418	635
65°	385	406	310	219	217	387
75°	166	184	129	121	119	180
85°	38	34	31	24	20	44
90°	0	1	3	3	3	2
95°	19	58	259	96	62	22
105°	79	111	446	850	814	83
115°	141	167	360	749	881	139
125°	195	218	355	587	692	173
135°	235	259	352	505	569	182
145°	275	296	352	436	474	172
155°	313	324	354	389	404	144
165°	341	345	355	368	372	96
175°	357	356	357	359	358	34
180°	358	358	358	358	358	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1544.4	1544.4	1544.4	1544.4	1544.4
2.5°	1532.6	1554.3	1540.4	1543.1	1545.6
5°	1526.4	1553.5	1539.5	1543.0	1554.1
7.5°	1520.5	1548.3	1534.5	1540.4	1554.1
10°	1516.7	1540.5	1528.1	1536.5	1547.7
12.5°	1504.9	1527.5	1516.3	1527.3	1537.1
15°	1484.0	1504.7	1498.7	1513.5	1521.5
17.5°	1455.5	1480.8	1480.7	1501.8	1510.1
20°	1433.4	1463.7	1467.7	1494.1	1510.1
22.5°	1409.8	1445.2	1451.9	1491.8	1519.3
25°	1374.6	1409.7	1433.4	1491.4	1533.0
27.5°	1333.4	1368.2	1417.1	1482.1	1515.0
30°	1306.1	1339.6	1397.4	1465.1	1495.4
32.5°	1272.1	1306.8	1368.7	1441.5	1469.2
35°	1217.9	1251.4	1325.6	1401.1	1417.1
37.5°	1155.5	1193.5	1276.6	1318.7	1319.7
40°	1108.5	1157.9	1237.5	1245.2	1224.3
42.5°	1062.7	1126.3	1182.6	1148.2	1056.0
45°	992.6	1067.6	1090.5	924.2	860.3
47.5°	917.8	991.9	955.4	775.1	731.1
50°	866.9	937.1	845.7	692.9	651.4
52.5°	809.4	871.9	747.7	614.0	550.8
55°	720.0	763.1	635.1	478.6	417.9
57.5°	612.2	642.6	543.0	359.2	291.3
60°	540.4	564.4	475.1	294.7	261.2
62.5°	475.1	496.5	404.6	256.0	244.2
65°	385.2	406.0	310.2	218.8	217.2
67.5°	306.6	329.2	238.0	190.9	189.1
70°	259.6	283.5	197.6	171.3	168.2
72.5°	220.3	243.1	167.5	150.5	148.6
75°	166.5	184.1	129.0	120.7	119.2
77.5°	120.9	132.0	96.0	91.7	90.1
80°	94.7	99.5	75.1	73.4	71.9
82.5°	71.2	69.6	56.8	55.1	52.3
85°	37.6	34.4	31.0	24.3	19.6
87.5°	11.8	12.0	5.9	4.6	4.6
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.3	25.0	80.0	26.6	18.7
95°	19.1	57.7	259.0	96.1	61.9
97.5°	35.6	74.8	438.9	274.2	168.3
100°	47.3	84.8	500.1	455.9	296.3
102.5°	60.0	95.6	489.3	669.6	512.5
105°	78.9	110.8	446.1	849.7	814.3
107.5°	97.8	127.3	404.8	868.4	916.0
110°	110.3	139.0	384.1	846.8	934.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	123.0	149.8	372.4	809.5	921.4
115°	140.8	167.3	360.4	748.7	880.9
117.5°	158.1	183.2	355.7	690.1	823.4
120°	169.0	193.2	354.8	654.0	782.9
122.5°	179.8	203.1	354.8	624.9	745.0
125°	194.9	218.0	354.8	587.0	691.6
127.5°	208.1	230.4	354.8	557.6	646.7
130°	216.3	239.3	354.8	540.3	620.6
132.5°	224.4	247.5	353.9	526.6	599.0
135°	235.4	258.6	352.5	504.9	568.9
137.5°	246.3	270.5	352.3	484.4	541.4
140°	253.5	277.7	351.4	469.8	521.5
142.5°	262.4	285.7	352.3	455.3	503.5
145°	274.9	295.8	352.5	435.7	474.2
147.5°	287.2	305.1	352.7	418.4	449.8
150°	296.3	310.5	353.6	408.3	433.7
152.5°	303.4	316.0	353.6	400.2	421.1
155°	313.1	324.1	353.6	389.0	404.3
157.5°	323.5	331.0	354.8	382.0	392.7
160°	328.9	335.5	354.8	377.5	386.4
162.5°	334.3	339.2	354.8	373.9	380.0
165°	341.3	344.6	354.8	368.4	371.8
167.5°	347.9	348.7	355.9	364.6	367.5
170°	351.4	351.4	355.9	362.7	363.8
172.5°	353.2	354.1	355.9	360.9	361.1
175°	357.0	356.0	357.0	359.3	358.2
177.5°	358.2	357.3	357.3	359.1	357.3
180°	358.2	358.2	358.2	358.2	358.2



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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	19.90	20.86	20.74	21.71	22.78	16.30	17.25	17.13	18.11	19.17
	3H	21.00	21.86	21.86	22.72	23.82	17.41	18.26	18.26	19.13	20.22
	4H	21.35	22.15	22.22	23.03	24.13	17.88	18.68	18.74	19.55	20.66
	6H	21.57	22.31	22.45	23.19	24.31	18.23	18.97	19.11	19.85	20.96
	8H	21.62	22.33	22.51	23.22	24.34	18.32	19.02	19.20	19.92	21.03
	12H	21.64	22.31	22.53	23.20	24.34	18.33	19.00	19.23	19.89	21.03
4H	2H	20.02	20.83	20.89	21.70	22.80	17.02	17.83	17.90	18.70	19.80
	3H	21.34	22.01	22.22	22.91	24.03	18.28	18.95	19.17	19.85	20.97
	4H	21.82	22.42	22.71	23.32	24.47	18.84	19.45	19.74	20.35	21.49
	6H	22.16	22.68	23.07	23.60	24.75	19.29	19.81	20.20	20.73	21.88
	8H	22.26	22.74	23.17	23.66	24.82	19.41	19.90	20.32	20.81	21.97
	12H	22.30	22.73	23.23	23.67	24.84	19.44	19.88	20.37	20.82	21.98
8H	4H	21.84	22.33	22.76	23.25	24.41	19.12	19.61	20.03	20.53	21.69
	6H	22.28	22.68	23.22	23.64	24.80	19.67	20.07	20.61	21.03	22.19
	8H	22.43	22.79	23.38	23.74	24.92	19.86	20.21	20.80	21.16	22.34
	12H	22.52	22.84	23.48	23.78	25.01	19.93	20.25	20.88	21.19	22.42
12H	4H	21.81	22.24	22.74	23.18	24.35	19.13	19.57	20.07	20.51	21.67
	6H	22.27	22.62	23.21	23.57	24.75	19.72	20.08	20.67	21.03	22.21
	8H	22.44	22.75	23.39	23.70	24.93	19.94	20.25	20.89	21.19	22.42