

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: P853999

Luminaire Tested: SQ2-PH1-025U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853999
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-025U-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

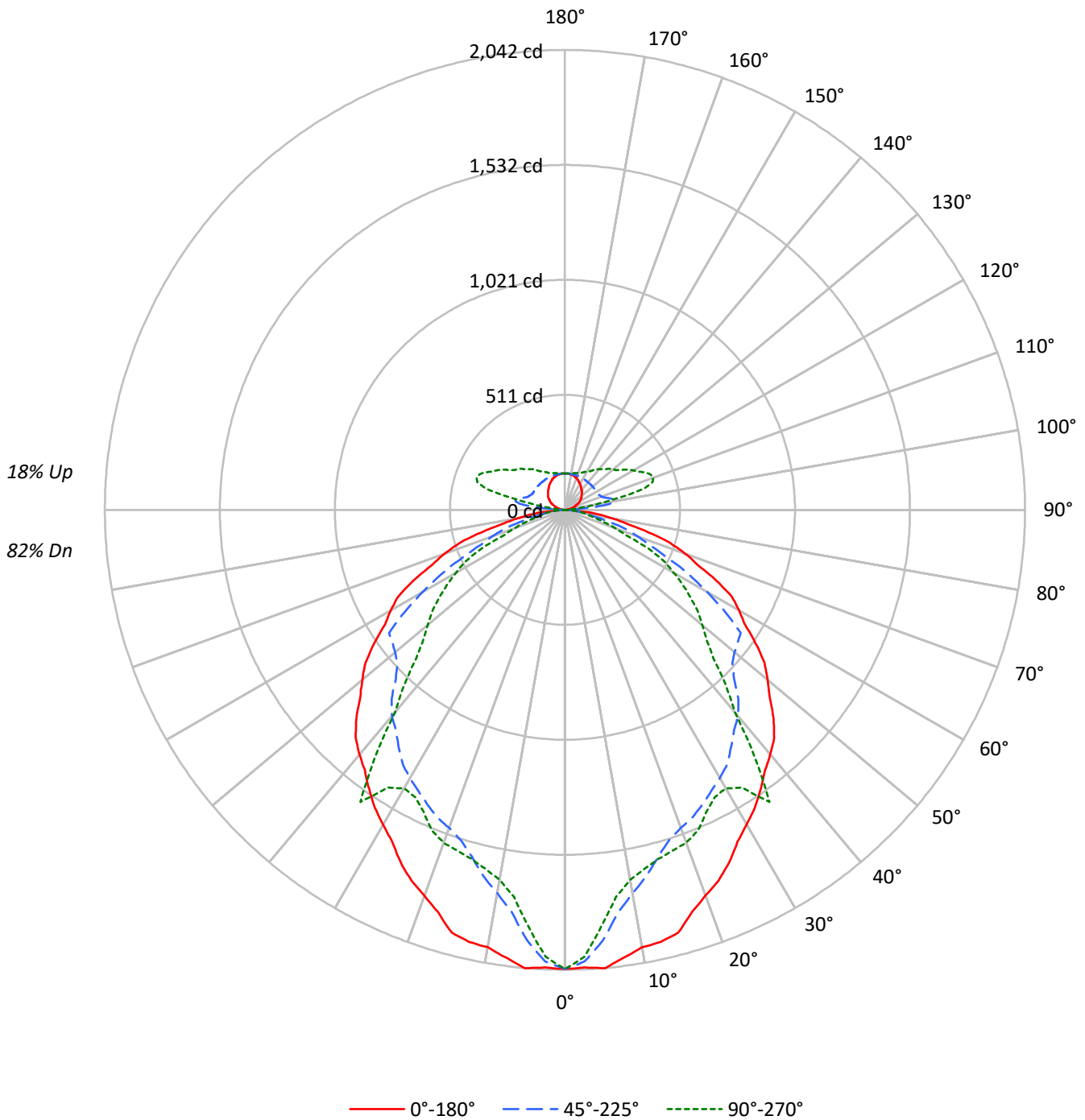
Lumens per Lamp: N/A
Luminaire Lumens: 5512.3 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45
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	50	30	10
RCR																				
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	85	82	
1	105	101	97	93	101	97	93	90	89	87	84	82	80	78	76	74	73	73	70	
2	96	88	82	77	92	85	79	75	79	74	70	73	69	66	67	64	62	62	59	
3	88	78	70	64	84	75	68	63	70	64	59	64	60	56	60	56	53	53	50	
4	81	69	61	55	77	67	59	53	62	56	51	58	52	48	54	49	46	46	43	
5	74	62	53	47	71	60	52	46	56	49	44	52	46	42	48	44	40	40	37	
6	68	56	47	41	65	54	46	40	50	44	39	47	41	37	44	39	35	35	33	
7	63	51	42	36	61	49	41	36	46	39	34	43	37	33	40	35	31	31	29	
8	59	46	38	32	57	45	37	32	42	35	31	39	34	29	37	32	28	28	26	
9	55	42	35	29	53	41	34	29	39	32	28	36	31	27	34	29	25	25	24	
10	52	39	31	26	50	38	31	26	36	29	25	34	28	24	32	27	23	23	21	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32913	32913	32913
5°	33102	31122	30084
10°	32339	28334	27347
15°	32485	26649	26812
20°	31326	25828	27027
25°	30752	25707	26398
30°	30085	25639	26614
35°	29857	25346	31196
40°	29883	25183	24732
45°	29894	24224	21302
50°	29474	24702	19974
55°	29101	26807	19164
60°	28811	23486	17977
65°	28306	19045	15633
70°	26738	16206	11169
75°	23836	12221	8472
80°	19479	7931	7931
85°	12208	7188	5391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29894 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.4	3.3
10°-20°	471.8	8.6
20°-30°	691.8	12.5
30°-40°	837.8	15.2
40°-50°	823.9	14.9
50°-60°	717.2	13.0
60°-70°	498.6	9.0
70°-80°	236.4	4.3
80°-90°	52.5	1.0
90°-100°	65.4	1.2
100°-110°	203.4	3.7
110°-120°	199.0	3.6
120°-130°	162.5	2.9
130°-140°	132.9	2.4
140°-150°	103.7	1.9
150°-160°	74.9	1.4
160°-170°	45.8	0.8
170°-180°	15.4	0.3
0°-30°	1343.0	24.4
0°-40°	2180.8	39.6
0°-60°	3721.8	67.5
0°-90°	4509.3	81.8
90°-120°	467.8	8.5
90°-150°	867.0	15.7
90°-180°	1003.0	18.2
0°-180°	5512.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2038	2038	2038	2038	2038	
5°	2042	2040	1920	1860	1856	192
15°	1943	1731	1594	1583	1604	542
25°	1726	1468	1443	1488	1482	794
35°	1515	1225	1286	1397	1583	949
45°	1309	970	1061	1098	933	1006
55°	1034	755	952	686	681	924
65°	741	519	498	409	409	728
75°	382	264	196	140	136	405
85°	66	43	39	31	29	88
90°	0	1	3	3	3	2
95°	9	26	120	44	29	10
105°	36	50	200	382	365	38
115°	64	75	163	335	393	63
125°	88	98	161	264	309	78
135°	106	118	160	228	256	82
145°	124	134	160	197	214	78
155°	142	147	161	177	182	65
165°	156	157	162	167	168	44
175°	162	162	162	163	162	15
180°	162	162	162	162	162	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2038.5	2038.5	2038.5	2038.5	2038.5
2.5°	2033.8	2055.1	2007.4	1988.8	1985.7
5°	2042.4	2040.5	1920.2	1860.0	1856.2
7.5°	2005.1	1946.3	1802.6	1736.2	1733.2
10°	1972.5	1883.4	1728.2	1668.0	1668.0
12.5°	1964.8	1824.1	1667.6	1623.2	1632.3
15°	1943.4	1731.0	1594.3	1583.2	1604.0
17.5°	1872.8	1644.1	1537.3	1562.7	1587.0
20°	1823.2	1597.5	1503.2	1550.2	1573.0
22.5°	1781.3	1552.6	1478.3	1529.8	1542.0
25°	1726.2	1468.3	1443.0	1487.5	1481.8
27.5°	1660.3	1391.0	1407.7	1435.0	1438.4
30°	1613.7	1344.4	1375.2	1402.9	1427.5
32.5°	1568.7	1290.3	1339.5	1405.1	1461.7
35°	1514.8	1224.6	1285.9	1396.8	1582.7
37.5°	1458.2	1147.1	1232.0	1325.3	1384.5
40°	1417.8	1091.6	1194.8	1310.0	1173.4
42.5°	1374.4	1048.2	1138.9	1287.7	1057.1
45°	1309.2	969.7	1060.9	1097.9	932.9
47.5°	1232.4	908.9	1008.2	915.6	851.1
50°	1173.4	868.1	983.4	836.9	795.2
52.5°	1116.0	825.9	966.3	772.1	744.0
55°	1033.8	755.0	952.3	686.5	680.8
57.5°	946.5	682.9	842.2	612.0	621.8
60°	892.2	636.2	727.3	568.0	556.7
62.5°	834.8	590.9	620.3	512.2	500.8
65°	740.9	519.0	498.5	409.2	409.2
67.5°	637.7	444.3	403.8	334.9	289.4
70°	566.4	395.7	343.3	267.0	236.6
72.5°	490.3	343.9	281.2	218.8	183.9
75°	382.1	264.5	195.9	139.6	135.8
77.5°	276.2	190.5	131.9	103.6	104.0
80°	209.5	145.0	85.3	83.4	85.3
82.5°	147.4	99.6	63.6	66.3	66.7
85°	65.9	43.2	38.8	31.0	29.1
87.5°	14.0	12.6	8.4	8.4	8.4
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.1	37.9	12.4	10.1
95°	8.9	26.4	120.0	44.3	28.8
97.5°	16.3	34.3	198.7	123.7	77.9
100°	21.8	38.3	224.1	209.6	139.8
102.5°	27.4	43.1	219.3	299.3	235.0
105°	35.7	50.2	200.3	382.3	364.9
107.5°	44.0	57.6	182.0	388.7	407.9
110°	49.6	63.1	172.5	379.6	417.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	55.1	67.9	167.8	363.2	411.1
115°	63.5	75.1	162.6	335.4	392.6
117.5°	71.6	82.2	160.4	308.9	367.4
120°	76.3	87.0	159.6	293.8	350.0
122.5°	81.1	91.8	160.4	281.0	332.5
125°	88.2	97.9	160.6	263.8	309.3
127.5°	94.0	103.9	160.6	250.9	289.7
130°	97.2	107.8	160.6	243.7	278.6
132.5°	101.1	111.8	159.8	237.3	269.9
135°	106.1	117.7	159.6	227.7	255.8
137.5°	111.8	122.5	159.6	218.1	243.7
140°	115.0	125.7	159.6	211.7	235.0
142.5°	119.0	128.9	159.6	205.3	226.2
145°	123.9	133.6	159.6	196.7	214.2
147.5°	129.9	138.2	160.6	188.7	202.5
150°	133.8	140.6	160.6	184.7	195.3
152.5°	137.0	143.0	160.6	180.7	189.8
155°	141.8	146.6	160.6	176.6	182.4
157.5°	146.5	150.2	160.6	173.0	176.7
160°	149.7	152.6	160.6	170.6	173.5
162.5°	152.1	154.2	160.6	169.0	171.1
165°	155.7	156.6	161.6	166.6	168.5
167.5°	157.8	158.0	160.6	165.2	166.2
170°	158.6	159.6	160.6	163.6	164.6
172.5°	160.2	160.4	161.4	162.8	163.0
175°	161.6	161.6	161.6	162.6	161.6
177.5°	161.6	161.6	161.6	161.6	161.6
180°	161.6	161.6	161.6	161.6	161.6

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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	22.02	23.25	22.65	23.89	24.62	20.69	21.92	21.32	22.56	23.29
	3H	24.07	25.17	24.71	25.82	26.59	21.75	22.86	22.39	23.51	24.27
	4H	24.82	25.86	25.48	26.52	27.30	21.98	23.02	22.65	23.68	24.46
	6H	25.32	26.28	26.00	26.95	27.75	22.15	23.11	22.82	23.78	24.57
	8H	25.46	26.37	26.14	27.06	27.86	22.19	23.10	22.88	23.80	24.59
	12H	25.52	26.39	26.21	27.07	27.90	22.20	23.07	22.89	23.76	24.58
4H	2H	22.44	23.48	23.10	24.14	24.92	21.38	22.42	22.04	23.08	23.86
	3H	24.58	25.44	25.26	26.14	26.94	22.59	23.45	23.27	24.16	24.95
	4H	25.41	26.19	26.10	26.90	27.72	22.88	23.66	23.58	24.37	25.20
	6H	26.01	26.69	26.73	27.42	28.26	23.11	23.79	23.82	24.52	25.36
	8H	26.19	26.83	26.91	27.55	28.40	23.18	23.81	23.89	24.53	25.39
	12H	26.28	26.85	27.02	27.60	28.45	23.20	23.77	23.94	24.52	25.37
8H	4H	25.46	26.09	26.17	26.81	27.67	23.13	23.76	23.85	24.49	25.34
	6H	26.12	26.64	26.87	27.41	28.27	23.41	23.94	24.16	24.71	25.56
	8H	26.35	26.82	27.11	27.59	28.46	23.52	23.98	24.28	24.76	25.63
	12H	26.48	26.89	27.24	27.65	28.58	23.58	23.99	24.34	24.75	25.68
12H	4H	25.42	25.99	26.16	26.74	27.60	23.14	23.71	23.88	24.46	25.32
	6H	26.10	26.56	26.86	27.34	28.21	23.45	23.91	24.21	24.68	25.55
	8H	26.35	26.76	27.11	27.52	28.45	23.58	23.99	24.34	24.75	25.68