

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: P854417

Luminaire Tested: SQ2-WBN-025U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854417
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-025U-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

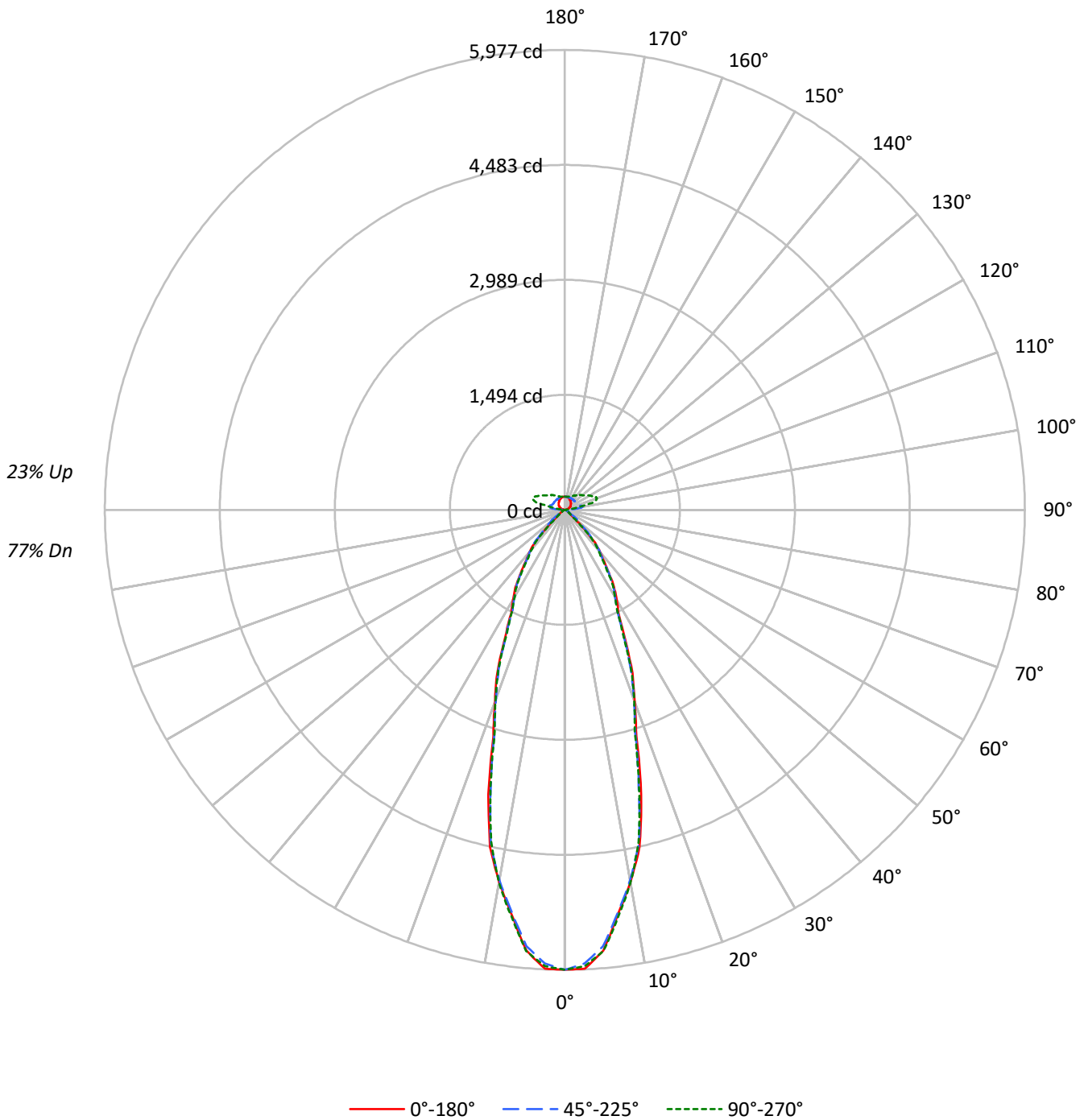
Lumens per Lamp: N/A
Luminaire Lumens: 4534.7 lumens
Efficiency: N/A
Efficacy: 129.6 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 35
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

TEST NUMBER: P854417

CATALOG NUMBER: SQ2-WBN-025U-075D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854417

CATALOG NUMBER: SQ2-WBN-025U-075D-940-UNV-STD-W-4

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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	107	104	101	99	102	100	97	95	91	89	88	84	82	81	76	76	75	71
2	101	96	91	87	96	92	88	85	85	82	79	78	76	74	72	71	69	66
3	95	88	83	78	91	85	80	76	79	75	72	73	71	68	68	66	64	62
4	90	82	76	71	86	79	74	69	74	70	66	69	66	63	65	62	60	57
5	85	76	70	65	81	74	68	64	69	65	61	65	61	58	61	58	56	54
6	80	71	65	60	77	69	63	59	65	60	57	61	57	54	58	55	52	50
7	76	66	60	56	73	64	59	55	61	56	53	58	54	51	55	52	49	47
8	72	62	56	52	70	61	55	51	58	53	49	55	51	48	52	49	46	45
9	69	59	53	49	66	57	52	48	55	50	47	52	48	45	50	46	44	42
10	65	55	50	46	63	54	49	45	52	47	44	50	46	43	47	44	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	96502	96502	96502
5°	93175	92248	93279
10°	80537	80155	80729
15°	64087	62066	62315
20°	45527	44926	45254
25°	32753	32111	31885
30°	25025	24354	24294
35°	19645	19310	18810
40°	14885	14682	13968
45°	8327	9951	7432
50°	2929	6126	2582
55°	1790	3344	1700
60°	1369	1747	1266
65°	1257	1295	1173
70°	1199	1199	1100
75°	1123	1123	1061
80°	986	986	986
85°	982	778	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9951 cd/sqm



TEST NUMBER: P854417

CATALOG NUMBER: SQ2-WBN-025U-075D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	518.8	11.4
10°-20°	1031.1	22.7
20°-30°	853.9	18.8
30°-40°	614.3	13.5
40°-50°	313.0	6.9
50°-60°	81.5	1.8
60°-70°	33.8	0.7
70°-80°	18.8	0.4
80°-90°	6.0	0.1
90°-100°	69.4	1.5
100°-110°	215.7	4.8
110°-120°	211.0	4.7
120°-130°	172.3	3.8
130°-140°	140.9	3.1
140°-150°	110.0	2.4
150°-160°	79.4	1.8
160°-170°	48.5	1.1
170°-180°	16.4	0.4
0°-30°	2403.8	53.0
0°-40°	3018.1	66.6
0°-60°	3412.6	75.3
0°-90°	3471.1	76.5
90°-120°	496.1	10.9
90°-150°	919.3	20.3
90°-180°	1064.0	23.5
0°-180°	4534.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5977	5977	5977	5977	5977	
5°	5749	5741	5692	5774	5755	518
15°	3834	3790	3713	3739	3728	1041
25°	1838	1835	1802	1787	1790	865
35°	997	1003	980	964	954	625
45°	365	420	436	405	326	291
55°	64	74	119	69	60	63
65°	33	34	34	32	31	33
75°	18	18	18	17	17	19
85°	5	5	4	5	4	6
90°	0	1	3	3	3	1
95°	10	28	127	47	30	11
105°	38	53	212	405	387	40
115°	67	80	172	356	416	66
125°	94	104	170	280	328	83
135°	112	125	169	241	271	87
145°	131	142	169	209	227	83
155°	150	156	170	187	193	69
165°	165	166	171	177	179	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



TEST NUMBER: P854417

CATALOG NUMBER: SQ2-WBN-025U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5976.9	5976.9	5976.9	5976.9	5976.9
2.5°	5967.5	5957.6	5900.5	5947.8	5936.2
5°	5748.9	5740.6	5691.7	5773.9	5755.3
7.5°	5297.4	5304.5	5275.8	5348.5	5328.6
10°	4912.3	4931.0	4889.0	4994.5	4924.0
12.5°	4487.4	4475.3	4446.2	4462.5	4423.5
15°	3834.0	3790.5	3713.1	3739.4	3728.0
17.5°	3088.2	3105.0	3038.0	3035.1	3022.3
20°	2649.7	2654.9	2614.7	2635.8	2633.8
22.5°	2296.8	2297.8	2246.5	2277.5	2258.8
25°	1838.5	1835.4	1802.5	1786.7	1789.8
27.5°	1507.7	1494.9	1470.0	1480.4	1472.7
30°	1342.3	1332.0	1306.3	1312.4	1303.1
32.5°	1193.9	1194.3	1168.0	1164.9	1158.1
35°	996.7	1002.9	979.7	963.6	954.3
37.5°	820.7	826.5	806.9	783.4	775.5
40°	706.2	710.3	696.6	668.9	662.7
42.5°	581.5	598.9	585.5	559.3	545.6
45°	364.7	419.7	435.8	405.3	325.5
47.5°	184.5	260.6	310.9	229.6	151.2
50°	116.6	169.5	243.9	138.1	102.8
52.5°	89.5	116.7	194.7	102.0	82.5
55°	63.6	74.0	118.8	68.7	60.4
57.5°	49.2	55.0	71.0	52.0	46.9
60°	42.4	46.6	54.1	44.4	39.2
62.5°	38.2	40.7	43.9	37.7	35.8
65°	32.9	33.9	33.9	31.8	30.7
67.5°	28.0	29.0	28.8	27.8	26.7
70°	25.4	26.5	25.4	24.4	23.3
72.5°	22.1	23.1	22.1	21.8	20.8
75°	18.0	18.0	18.0	17.0	17.0
77.5°	14.0	14.2	13.1	13.1	12.3
80°	10.6	11.6	10.6	10.6	10.6
82.5°	8.9	9.1	8.1	8.1	8.1
85°	5.3	5.3	4.2	5.3	4.2
87.5°	1.7	1.9	2.3	2.3	2.3
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.8	40.2	13.2	10.7
95°	9.5	28.0	127.2	46.9	30.5
97.5°	17.2	36.4	210.7	131.2	82.6
100°	23.1	40.6	237.6	222.3	148.2
102.5°	29.0	45.7	232.6	317.4	249.2
105°	37.8	53.3	212.4	405.4	386.9
107.5°	46.7	61.1	193.0	412.2	432.5
110°	52.6	67.0	182.9	402.5	442.6



TEST NUMBER: P854417

CATALOG NUMBER: SQ2-WBN-025U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.5	72.0	177.9	385.1	435.9
115°	67.3	79.6	172.4	355.7	416.3
117.5°	75.9	87.2	170.1	327.5	389.6
120°	81.0	92.3	169.3	311.5	371.1
122.5°	86.0	97.3	170.1	297.9	352.6
125°	93.6	103.9	170.3	279.7	328.0
127.5°	99.7	110.2	170.3	266.1	307.2
130°	103.0	114.3	170.3	258.4	295.4
132.5°	107.2	118.5	169.5	251.6	286.2
135°	112.5	124.8	169.3	241.4	271.2
137.5°	118.6	129.9	169.3	231.3	258.4
140°	122.0	133.3	169.3	224.5	249.2
142.5°	126.2	136.6	169.3	217.7	239.9
145°	131.4	141.7	169.3	208.6	227.1
147.5°	137.7	146.6	170.3	200.1	214.7
150°	141.9	149.1	170.3	195.8	207.1
152.5°	145.3	151.7	170.3	191.6	201.2
155°	150.3	155.5	170.3	187.3	193.4
157.5°	155.4	159.3	170.3	183.4	187.4
160°	158.8	161.8	170.3	180.9	184.0
162.5°	161.3	163.5	170.3	179.2	181.5
165°	165.1	166.1	171.4	176.7	178.7
167.5°	167.4	167.6	170.3	175.2	176.2
170°	168.2	169.2	170.3	173.5	174.5
172.5°	169.9	170.1	171.2	172.6	172.8
175°	171.4	171.4	171.4	172.4	171.4
177.5°	171.4	171.4	171.4	171.4	171.4
180°	171.4	171.4	171.4	171.4	171.4



TEST NUMBER: P854417

CATALOG NUMBER: SQ2-WBN-025U-075D-940-UNV-STD-W-4

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	5.13	5.96	5.86	6.67	7.52	4.74	5.56	5.47	6.28	7.13
	3H	6.18	6.91	6.92	7.64	8.52	5.74	6.47	6.49	7.20	8.09
	4H	6.60	7.29	7.37	8.03	8.93	6.17	6.85	6.93	7.59	8.49
	6H	6.92	7.55	7.69	8.30	9.20	6.50	7.13	7.28	7.88	8.79
	8H	7.02	7.61	7.81	8.38	9.29	6.61	7.20	7.39	7.96	8.87
	12H	7.09	7.65	7.87	8.41	9.34	6.66	7.22	7.44	7.98	8.91
4H	2H	5.35	6.04	6.12	6.78	7.67	5.02	5.70	5.79	6.44	7.34
	3H	6.65	7.21	7.43	7.99	8.90	6.27	6.83	7.04	7.61	8.52
	4H	7.21	7.72	8.00	8.50	9.44	6.83	7.33	7.61	8.11	9.05
	6H	7.66	8.10	8.47	8.90	9.85	7.29	7.72	8.10	8.52	9.47
	8H	7.82	8.22	8.63	9.02	9.98	7.44	7.85	8.25	8.64	9.60
	12H	7.93	8.28	8.75	9.10	10.06	7.53	7.88	8.35	8.70	9.67
8H	4H	7.35	7.76	8.16	8.55	9.51	7.01	7.41	7.82	8.21	9.16
	6H	7.94	8.26	8.77	9.10	10.06	7.59	7.92	8.43	8.76	9.72
	8H	8.18	8.46	9.03	9.30	10.28	7.83	8.12	8.68	8.96	9.93
	12H	8.37	8.62	9.22	9.45	10.49	8.00	8.25	8.85	9.08	10.12
12H	4H	7.33	7.69	8.16	8.51	9.47	6.99	7.35	7.82	8.17	9.13
	6H	7.95	8.24	8.80	9.08	10.06	7.62	7.91	8.47	8.75	9.73
	8H	8.23	8.48	9.08	9.31	10.35	7.90	8.15	8.74	8.97	10.01