

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: P853488

Luminaire Tested: SQ2-BBM-025U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853488
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-025U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

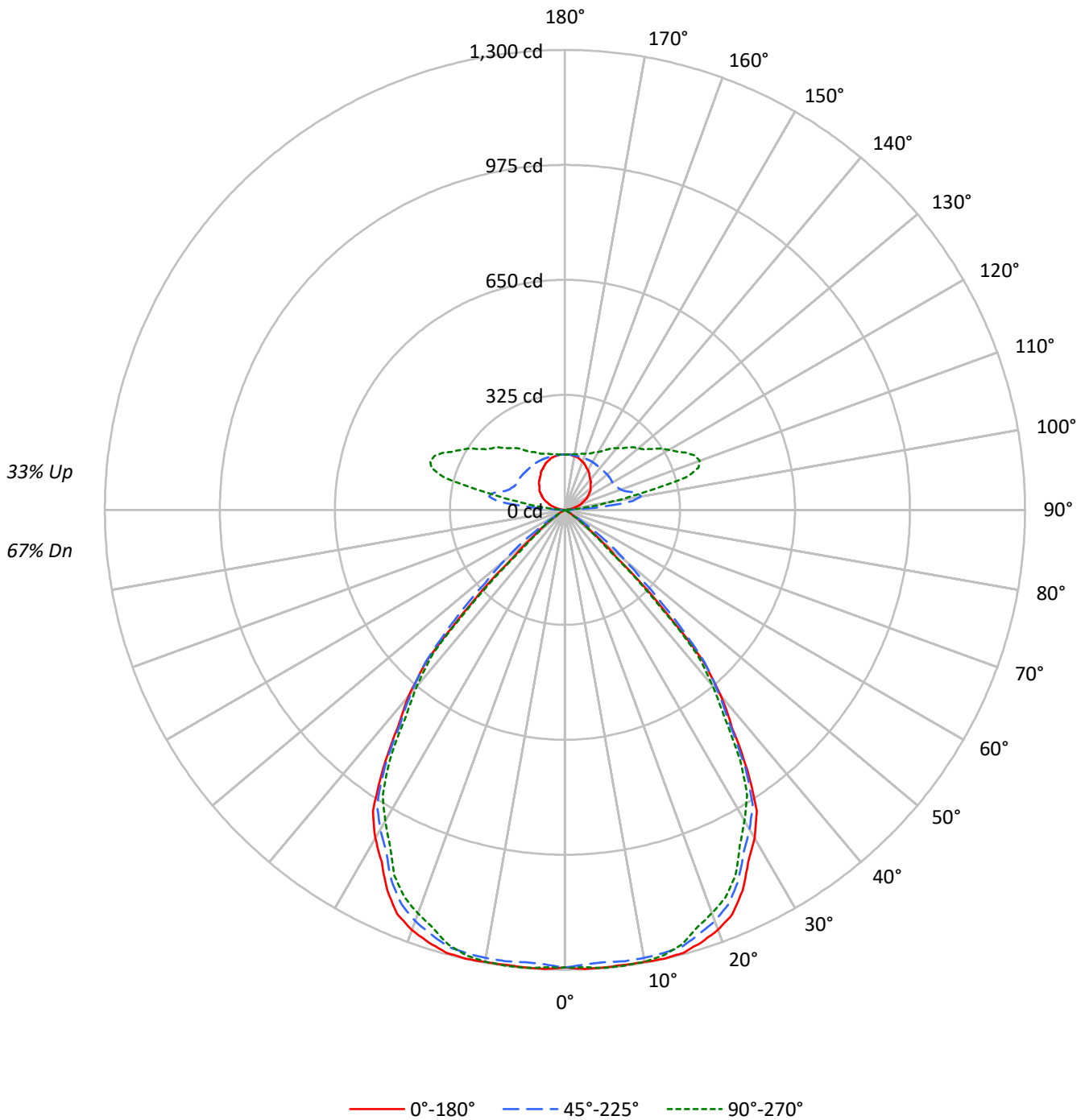
Lumens per Lamp: N/A
Luminaire Lumens: 2904.7 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.5
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

TEST NUMBER: P853488

CATALOG NUMBER: SQ2-BBM-025U-050D-930-UNV-STD-W-4

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	0	
RCR																						
0	111	111	111	111	105	105	105	105	93	93	93	81	81	81	71	71	71	67	67	67	67	
1	104	101	98	95	98	95	93	90	85	83	81	76	74	73	67	66	65	61	61	61	61	
2	97	91	86	82	92	87	82	79	78	75	72	70	68	66	62	61	59	56	56	56	56	
3	91	83	77	72	86	79	74	69	71	67	64	64	61	59	58	56	54	51	51	51	51	
4	84	75	69	64	80	72	66	62	65	61	57	59	56	53	54	51	49	46	46	46	46	
5	79	69	62	57	75	66	60	55	60	55	52	55	51	48	50	47	45	42	42	42	42	
6	73	63	56	51	70	60	54	50	55	50	47	51	47	44	46	43	41	39	39	39	39	
7	69	58	51	46	65	56	49	45	51	46	42	47	43	40	43	40	37	35	35	35	35	
8	64	53	47	42	61	51	45	41	47	42	39	44	40	36	40	37	34	32	32	32	32	
9	60	49	43	38	57	48	41	37	44	39	35	41	37	34	38	34	32	30	30	30	30	
10	57	46	39	35	54	44	38	34	41	36	33	38	34	31	35	32	29	28	28	28	28	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20889	20889	20889
5°	21032	20799	21063
10°	21276	21086	21259
15°	21660	21369	21274
20°	21718	21256	20859
25°	21148	20633	20307
30°	19978	19442	18921
35°	17710	17501	17008
40°	14457	14254	13685
45°	8522	10061	7930
50°	2876	5606	2562
55°	974	2004	1030
60°	94	591	32
65°	0	38	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10061 cd/sqm



TEST NUMBER: P853488

CATALOG NUMBER: SQ2-BBM-025U-050D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.6	4.3
10°-20°	361.9	12.5
20°-30°	532.5	18.3
30°-40°	544.1	18.7
40°-50°	312.8	10.8
50°-60°	54.7	1.9
60°-70°	2.0	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	63.4	2.2
100°-110°	197.3	6.8
110°-120°	193.0	6.6
120°-130°	157.6	5.4
130°-140°	128.9	4.4
140°-150°	100.6	3.5
150°-160°	72.6	2.5
160°-170°	44.4	1.5
170°-180°	15.0	0.5
0°-30°	1018.0	35.0
0°-40°	1562.1	53.8
0°-60°	1929.6	66.4
0°-90°	1932.1	66.5
90°-120°	453.7	15.6
90°-150°	840.8	28.9
90°-180°	973.0	33.5
0°-180°	2904.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1298	1295	1283	1302	1300	124
15°	1296	1307	1278	1279	1273	365
25°	1187	1197	1158	1146	1140	543
35°	898	903	888	873	863	554
45°	373	434	441	418	347	292
55°	35	41	71	40	37	39
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	0
95°	9	26	116	43	28	10
105°	35	49	194	371	354	37
115°	62	73	158	325	381	61
125°	86	95	156	256	300	76
135°	103	114	155	221	248	80
145°	120	130	155	191	208	75
155°	138	142	156	171	177	63
165°	151	152	157	162	164	42
175°	157	157	157	158	157	15
180°	157	157	157	157	157	



TEST NUMBER: P853488

CATALOG NUMBER: SQ2-BBM-025U-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1293.8	1293.8	1293.8	1293.8	1293.8
2.5°	1299.2	1296.2	1286.1	1297.6	1294.6
5°	1297.7	1294.9	1283.3	1301.5	1299.6
7.5°	1296.9	1294.7	1286.9	1302.8	1299.0
10°	1297.7	1297.7	1286.1	1300.5	1296.7
12.5°	1299.2	1303.0	1283.8	1295.1	1289.8
15°	1295.8	1307.0	1278.4	1279.3	1272.7
17.5°	1281.7	1296.9	1257.9	1248.6	1238.6
20°	1264.0	1280.0	1237.1	1222.5	1214.0
22.5°	1237.1	1252.3	1207.1	1194.7	1185.5
25°	1187.1	1197.4	1158.2	1145.6	1139.9
27.5°	1121.6	1126.9	1092.8	1079.7	1070.3
30°	1071.6	1071.6	1042.8	1028.0	1014.9
32.5°	1009.3	1006.3	987.4	970.3	957.9
35°	898.5	903.2	887.9	873.2	862.9
37.5°	775.9	780.4	764.8	748.0	740.9
40°	685.9	689.6	676.3	658.7	649.3
42.5°	575.1	595.4	583.1	564.0	551.6
45°	373.2	434.4	440.6	417.8	347.3
47.5°	194.5	258.5	305.5	233.3	163.5
50°	114.5	155.9	223.2	127.4	102.0
52.5°	73.7	91.7	157.0	81.5	68.9
55°	34.6	41.2	71.2	40.3	36.6
57.5°	12.9	19.3	32.1	19.5	14.0
60°	2.9	8.5	18.3	5.7	1.0
62.5°	0.6	2.5	10.6	1.1	0.2
65°	0.0	0.0	1.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.2	0.6	0.6	0.6
90°	0.0	0.9	2.9	2.9	2.9
92.5°	3.1	10.8	36.7	12.1	9.8
95°	8.7	25.6	116.3	42.9	27.9
97.5°	15.8	33.3	192.7	119.9	75.6
100°	21.2	37.1	217.3	203.3	135.6
102.5°	26.5	41.8	212.7	290.3	227.9
105°	34.6	48.7	194.2	370.7	353.8
107.5°	42.7	55.9	176.5	376.9	395.6
110°	48.1	61.2	167.3	368.1	404.8



TEST NUMBER: P853488

CATALOG NUMBER: SQ2-BBM-025U-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	53.5	65.9	162.7	352.2	398.6
115°	61.5	72.8	157.7	325.3	380.7
117.5°	69.4	79.8	155.6	299.5	356.3
120°	74.0	84.4	154.8	284.9	339.4
122.5°	78.6	89.0	155.6	272.5	322.5
125°	85.6	95.0	155.8	255.8	300.0
127.5°	91.1	100.7	155.8	243.3	280.9
130°	94.2	104.6	155.8	236.3	270.2
132.5°	98.1	108.4	155.0	230.1	261.7
135°	102.9	114.2	154.8	220.8	248.1
137.5°	108.5	118.8	154.8	211.5	236.3
140°	111.5	121.9	154.8	205.3	227.9
142.5°	115.4	125.0	154.8	199.1	219.4
145°	120.2	129.6	154.8	190.8	207.7
147.5°	126.0	134.0	155.8	183.0	196.3
150°	129.8	136.4	155.8	179.1	189.4
152.5°	132.9	138.7	155.8	175.2	184.0
155°	137.5	142.2	155.8	171.3	176.9
157.5°	142.1	145.7	155.8	167.8	171.3
160°	145.2	148.0	155.8	165.4	168.3
162.5°	147.5	149.6	155.8	163.9	166.0
165°	151.0	151.9	156.7	161.6	163.5
167.5°	153.1	153.3	155.8	160.2	161.1
170°	153.8	154.8	155.8	158.7	159.6
172.5°	155.4	155.6	156.5	157.9	158.1
175°	156.7	156.7	156.7	157.7	156.7
177.5°	156.7	156.7	156.7	156.7	156.7
180°	156.7	156.7	156.7	156.7	156.7



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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	0.00	0.64	0.69	1.47	2.50	0.00	0.24	0.29	1.07	2.10
	3H	0.00	0.36	0.51	1.20	2.26	0.00	0.00	0.11	0.80	1.86
	4H	0.00	0.21	0.42	1.06	2.13	0.00	0.00	0.03	0.66	1.73
	6H	0.00	0.05	0.33	0.91	1.99	0.00	0.00	0.00	0.51	1.59
	8H	0.00	0.00	0.28	0.83	1.91	0.00	0.00	0.00	0.43	1.51
	12H	0.00	0.00	0.22	0.74	1.84	0.00	0.00	0.00	0.34	1.44
4H	2H	0.00	0.22	0.44	1.07	2.14	0.00	0.00	0.04	0.67	1.74
	3H	0.00	0.00	0.25	0.79	1.87	0.00	0.00	0.00	0.39	1.47
	4H	0.00	0.00	0.15	0.62	1.73	0.00	0.00	0.00	0.23	1.34
	6H	0.00	0.00	0.06	0.47	1.58	0.00	0.00	0.00	0.07	1.19
	8H	0.00	0.00	0.00	0.37	1.49	0.00	0.00	0.00	0.00	1.09
	12H	0.00	0.00	0.00	0.27	1.40	0.00	0.00	0.00	0.00	1.01
8H	4H	0.00	0.00	0.00	0.37	1.49	0.00	0.00	0.00	0.00	1.09
	6H	0.00	0.00	0.00	0.22	1.34	0.00	0.00	0.00	0.00	0.95
	8H	0.00	0.00	0.00	0.11	1.25	0.00	0.00	0.00	0.00	0.86
	12H	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.80
12H	4H	0.00	0.00	0.00	0.27	1.40	0.00	0.00	0.00	0.00	1.01
	6H	0.00	0.00	0.00	0.11	1.25	0.00	0.00	0.00	0.00	0.86
	8H	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.80