

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: P853497

Luminaire Tested: SQ2-BBM-025U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853497
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-025U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

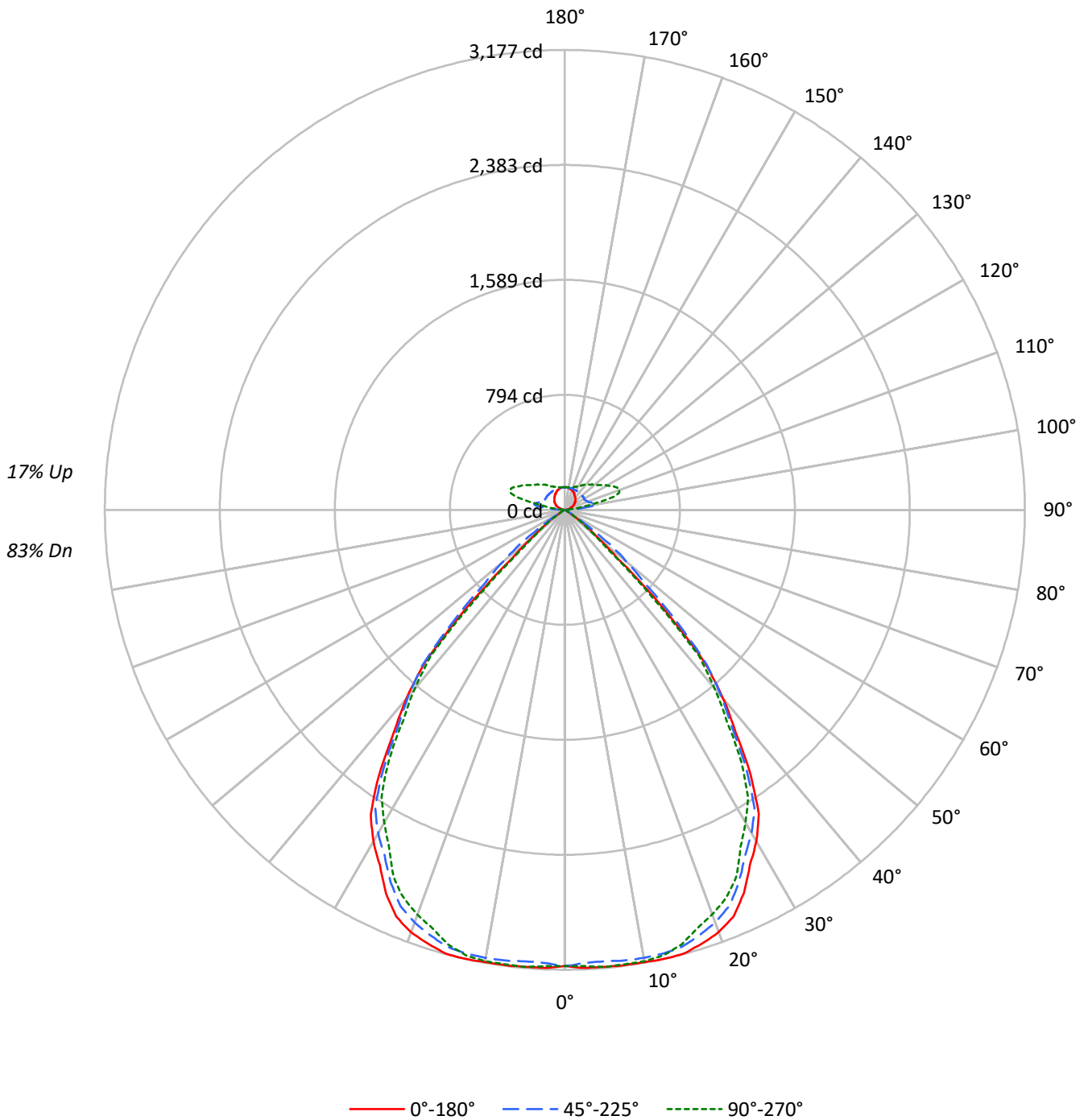
Lumens per Lamp: N/A
Luminaire Lumens: 5726.0 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 57.2
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: P853497

CATALOG NUMBER: SQ2-BBM-025U-125D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853497

CATALOG NUMBER: SQ2-BBM-025U-125D-930-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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83
1	108	105	102	100	104	101	99	97	94	92	91	88	86	85	82	81	80	77
2	102	96	91	87	98	93	89	85	87	83	81	81	79	76	76	74	72	70
3	95	88	82	77	92	85	80	76	80	76	72	75	72	69	71	68	66	63
4	89	80	74	69	86	78	72	68	74	69	65	70	66	62	66	63	60	58
5	83	74	67	62	80	72	65	61	68	63	59	64	60	57	61	58	55	53
6	78	68	61	56	75	66	60	55	63	57	53	60	55	52	57	53	50	48
7	73	63	56	51	71	61	55	50	58	53	49	55	51	47	53	49	46	44
8	69	58	51	46	66	57	50	46	54	48	45	52	47	43	49	45	42	40
9	65	54	47	42	63	53	46	42	50	45	41	48	43	40	46	42	39	37
10	61	50	43	39	59	49	43	39	47	41	38	45	40	37	43	39	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	50901	50901	50901
5°	51358	50725	51358
10°	52015	51514	51905
15°	53063	52251	51965
20°	53366	52122	51123
25°	52073	50632	49868
30°	49310	48069	46505
35°	44098	43065	41863
40°	35913	35392	33946
45°	21923	24836	19747
50°	7154	13901	6292
55°	2441	4906	2519
60°	184	1414	61
65°	38	73	0
70°	0	47	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 24877 cd/sqm



TEST NUMBER: P853497

CATALOG NUMBER: SQ2-BBM-025U-125D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.7	5.3
10°-20°	885.9	15.5
20°-30°	1309.2	22.9
30°-40°	1345.5	23.5
40°-50°	777.2	13.6
50°-60°	134.7	2.4
60°-70°	5.0	0.1
70°-80°	0.1	0.0
80°-90°	0.5	0.0
90°-100°	63.0	1.1
100°-110°	196.0	3.4
110°-120°	191.7	3.3
120°-130°	156.5	2.7
130°-140°	128.0	2.2
140°-150°	99.9	1.7
150°-160°	72.1	1.3
160°-170°	44.1	0.8
170°-180°	14.9	0.3
0°-30°	2496.8	43.6
0°-40°	3842.4	67.1
0°-60°	4754.2	83.0
0°-90°	4759.9	83.1
90°-120°	450.7	7.9
90°-150°	835.2	14.6
90°-180°	966.0	16.9
0°-180°	5726.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3153	3153	3153	3153	3153	
5°	3169	3160	3130	3175	3169	303
15°	3174	3198	3126	3131	3109	894
25°	2923	2949	2842	2810	2799	1336
35°	2237	2238	2185	2151	2124	1377
45°	960	1090	1088	1030	865	734
55°	87	101	174	99	90	97
65°	1	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	0
95°	9	25	116	43	28	10
105°	34	48	193	368	352	36
115°	61	72	157	323	378	60
125°	85	94	155	254	298	75
135°	102	113	154	219	246	79
145°	119	129	154	190	206	75
155°	137	141	155	170	176	63
165°	150	151	156	160	162	42
175°	156	156	156	157	156	15
180°	156	156	156	156	156	



TEST NUMBER: P853497

CATALOG NUMBER: SQ2-BBM-025U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3152.6	3152.6	3152.6	3152.6	3152.6
2.5°	3167.1	3158.1	3132.8	3161.6	3154.9
5°	3168.8	3159.5	3129.7	3175.3	3168.8
7.5°	3171.8	3166.0	3140.6	3176.3	3165.9
10°	3172.6	3173.5	3142.1	3173.4	3165.9
12.5°	3177.1	3186.3	3139.1	3164.1	3151.4
15°	3174.5	3197.8	3125.9	3131.1	3108.8
17.5°	3142.5	3176.0	3083.8	3061.3	3033.3
20°	3105.9	3139.4	3033.5	3003.4	2975.4
22.5°	3041.1	3077.6	2964.2	2931.0	2905.3
25°	2923.0	2949.1	2842.1	2809.5	2799.2
27.5°	2767.6	2776.9	2694.1	2651.0	2627.0
30°	2644.9	2643.1	2578.3	2528.9	2494.4
32.5°	2493.3	2502.6	2437.3	2391.0	2355.8
35°	2237.3	2238.2	2184.9	2150.9	2123.9
37.5°	1938.6	1933.9	1897.1	1851.4	1836.1
40°	1703.9	1710.4	1679.2	1627.3	1610.6
42.5°	1431.9	1474.9	1452.9	1391.8	1371.3
45°	960.1	1089.5	1087.7	1029.7	864.8
47.5°	491.3	653.3	750.7	588.0	394.5
50°	284.8	387.2	553.4	305.4	250.5
52.5°	180.4	229.2	393.4	198.5	166.7
55°	86.7	100.6	174.3	98.8	89.5
57.5°	31.6	47.1	77.3	48.1	33.9
60°	5.7	19.7	43.8	13.1	1.9
62.5°	1.9	5.4	25.5	3.4	1.1
65°	1.0	1.0	1.9	0.9	0.0
67.5°	0.0	0.9	1.0	0.0	0.0
70°	0.0	0.9	1.0	0.0	0.0
72.5°	0.0	0.2	0.2	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	10.7	36.5	12.0	9.7
95°	8.6	25.4	115.6	42.6	27.7
97.5°	15.7	33.0	191.4	119.2	75.1
100°	21.0	36.9	215.9	201.9	134.7
102.5°	26.4	41.5	211.3	288.4	226.4
105°	34.4	48.4	192.9	368.3	351.5
107.5°	42.4	55.5	175.4	374.5	393.0
110°	47.8	60.8	166.2	365.7	402.1



TEST NUMBER: P853497

CATALOG NUMBER: SQ2-BBM-025U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	53.1	65.4	161.6	349.9	396.0
115°	61.1	72.3	156.6	323.1	378.2
117.5°	69.0	79.2	154.5	297.6	354.0
120°	73.5	83.8	153.8	283.0	337.2
122.5°	78.1	88.4	154.5	270.7	320.4
125°	85.0	94.3	154.7	254.1	298.0
127.5°	90.5	100.1	154.7	241.7	279.1
130°	93.6	103.9	154.7	234.8	268.4
132.5°	97.4	107.7	154.0	228.6	260.0
135°	102.2	113.4	153.8	219.3	246.4
137.5°	107.7	118.0	153.8	210.1	234.8
140°	110.8	121.1	153.8	204.0	226.4
142.5°	114.6	124.1	153.8	197.8	218.0
145°	119.4	128.7	153.8	189.5	206.3
147.5°	125.1	133.2	154.7	181.8	195.0
150°	128.9	135.5	154.7	177.9	188.2
152.5°	132.0	137.8	154.7	174.0	182.8
155°	136.6	141.3	154.7	170.1	175.8
157.5°	141.2	144.7	154.7	166.7	170.2
160°	144.2	147.0	154.7	164.4	167.2
162.5°	146.5	148.6	154.7	162.8	164.9
165°	150.0	150.9	155.7	160.5	162.4
167.5°	152.1	152.2	154.7	159.2	160.1
170°	152.8	153.8	154.7	157.6	158.6
172.5°	154.4	154.5	155.5	156.8	157.0
175°	155.7	155.7	155.7	156.6	155.7
177.5°	155.7	155.7	155.7	155.7	155.7
180°	155.7	155.7	155.7	155.7	155.7



TEST NUMBER: P853497

CATALOG NUMBER: SQ2-BBM-025U-125D-930-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	4.24	5.17	4.89	5.80	6.51	3.85	4.78	4.50	5.41	6.12
	3H	4.07	4.88	4.72	5.52	6.27	3.67	4.49	4.33	5.13	5.88
	4H	3.97	4.73	4.64	5.38	6.15	3.58	4.34	4.25	4.99	5.76
	6H	3.86	4.56	4.55	5.22	6.00	3.47	4.17	4.16	4.83	5.61
	8H	3.81	4.46	4.51	5.14	5.93	3.42	4.07	4.12	4.75	5.54
	12H	3.75	4.38	4.45	5.05	5.86	3.36	3.99	4.06	4.66	5.46
4H	2H	3.97	4.73	4.65	5.38	6.15	3.59	4.34	4.27	5.00	5.77
	3H	3.79	4.40	4.48	5.10	5.88	3.40	4.01	4.09	4.71	5.49
	4H	3.68	4.23	4.38	4.93	5.74	3.29	3.84	3.99	4.54	5.35
	6H	3.57	4.04	4.30	4.76	5.60	3.18	3.65	3.91	4.37	5.21
	8H	3.51	3.95	4.24	4.66	5.50	3.12	3.56	3.85	4.27	5.11
	12H	3.44	3.83	4.19	4.57	5.41	3.05	3.44	3.80	4.18	5.02
8H	4H	3.51	3.95	4.24	4.66	5.50	3.12	3.56	3.85	4.27	5.11
	6H	3.39	3.74	4.14	4.51	5.35	3.00	3.35	3.75	4.12	4.96
	8H	3.32	3.64	4.09	4.40	5.26	2.93	3.25	3.70	4.01	4.87
	12H	3.26	3.54	4.02	4.29	5.21	2.87	3.15	3.63	3.90	4.82
12H	4H	3.44	3.83	4.19	4.57	5.41	3.05	3.44	3.80	4.18	5.02
	6H	3.32	3.64	4.09	4.40	5.26	2.93	3.25	3.70	4.01	4.87
	8H	3.26	3.54	4.02	4.29	5.21	2.87	3.15	3.63	3.90	4.82