

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: P853824

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853824
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-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

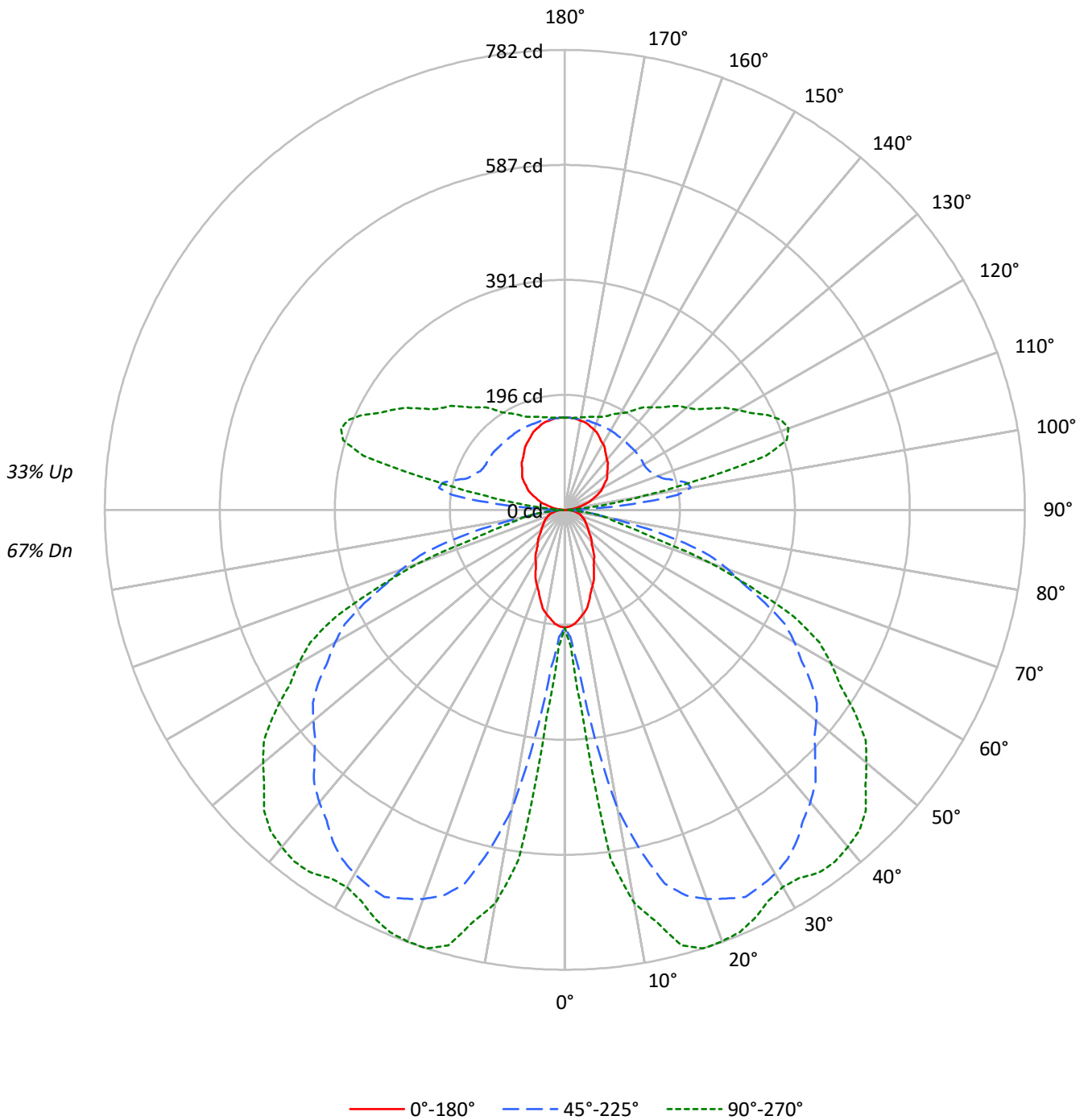
Lumens per Lamp: N/A
Luminaire Lumens: 2949.9 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.2
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0														
RCR																																						
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67																				
1	101	97	93	89	95	91	88	85	81	78	76	72	70	68	63	62	60	56																				
2	92	84	77	72	86	79	74	69	71	66	62	62	59	56	55	52	50	46																				
3	83	73	65	59	78	69	62	57	62	56	51	55	50	47	48	45	42	38																				
4	76	64	56	50	71	61	53	47	54	48	43	48	43	39	42	39	35	32																				
5	70	57	48	42	65	54	46	40	48	42	37	43	38	34	38	34	30	27																				
6	64	51	42	36	60	48	40	35	43	37	32	38	33	29	34	30	26	24																				
7	59	46	37	31	55	43	36	30	39	32	28	35	29	25	31	26	23	20																				
8	54	41	33	27	51	39	32	26	35	29	24	32	26	22	28	24	20	18																				
9	51	38	30	24	48	36	28	23	32	26	22	29	24	20	26	21	18	16																				
10	47	34	27	22	44	33	26	21	30	23	19	27	21	18	24	19	16	14																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3231	3231	3231
5°	3149	4365	5721
10°	2949	8452	11132
15°	2669	10997	12814
20°	2363	12096	13419
25°	2090	12937	13639
30°	1848	13323	13807
35°	1650	13555	14844
40°	1501	13683	15772
45°	1384	13748	16516
50°	1304	14011	16814
55°	1272	14376	16949
60°	1305	14567	16866
65°	1360	14369	16390
70°	1407	13893	12397
75°	1560	12483	6837
80°	1609	6434	6351
85°	1612	4446	2668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 17102 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.5	1.1
10°-20°	153.0	5.2
20°-30°	269.2	9.1
30°-40°	348.4	11.8
40°-50°	384.3	13.0
50°-60°	358.8	12.2
60°-70°	277.3	9.4
70°-80°	127.9	4.3
80°-90°	24.8	0.8
90°-100°	63.4	2.1
100°-110°	197.3	6.7
110°-120°	193.0	6.5
120°-130°	157.6	5.3
130°-140°	128.9	4.4
140°-150°	100.6	3.4
150°-160°	72.6	2.5
160°-170°	44.4	1.5
170°-180°	15.0	0.5
0°-30°	455.7	15.4
0°-40°	804.1	27.3
0°-60°	1547.2	52.4
0°-90°	1977.2	67.0
90°-120°	453.7	15.4
90°-150°	840.8	28.5
90°-180°	973.0	33.0
0°-180°	2949.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	200	200	200	200	200	
5°	194	222	269	328	353	18
15°	160	315	658	736	767	45
25°	117	423	726	758	766	54
35°	84	408	688	712	753	53
45°	61	313	602	691	723	47
55°	45	186	511	587	602	41
65°	36	105	376	421	429	35
75°	25	64	200	108	110	26
85°	9	19	24	16	14	9
90°	0	1	3	3	3	1
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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	200.1	200.1	200.1	200.1	200.1
2.5°	198.5	206.8	216.2	227.1	231.6
5°	194.3	222.5	269.3	328.5	353.0
7.5°	186.8	244.1	391.6	550.1	599.0
10°	179.9	259.8	515.5	652.7	679.0
12.5°	172.2	280.7	593.2	689.7	716.7
15°	159.7	314.8	657.9	736.5	766.6
17.5°	146.8	353.3	687.9	765.4	781.8
20°	137.5	380.2	704.0	770.6	781.0
22.5°	129.1	400.3	715.6	766.0	777.1
25°	117.3	423.0	726.2	758.1	765.6
27.5°	106.0	428.9	721.5	742.5	749.8
30°	99.1	427.3	714.6	730.2	740.6
32.5°	92.9	422.6	704.6	719.7	742.1
35°	83.7	408.1	687.7	711.7	753.1
37.5°	75.8	384.8	665.4	714.6	754.4
40°	71.2	367.4	649.2	714.4	748.3
42.5°	66.6	347.0	630.8	706.7	740.6
45°	60.6	312.6	602.1	691.3	723.3
47.5°	55.0	273.9	575.5	669.9	693.3
50°	51.9	247.5	557.8	650.6	669.4
52.5°	48.9	221.9	540.1	627.5	644.8
55°	45.2	186.3	510.7	587.0	602.1
57.5°	41.9	155.7	477.2	542.4	554.6
60°	40.4	139.1	451.1	510.0	522.3
62.5°	38.1	124.0	421.8	476.2	487.6
65°	35.6	105.2	376.1	421.4	429.0
67.5°	32.1	91.2	327.4	355.2	341.1
70°	29.8	84.4	294.3	303.0	262.6
72.5°	28.3	76.8	258.1	235.2	158.7
75°	25.0	64.5	200.1	107.8	109.6
77.5°	20.4	49.9	131.6	82.8	84.4
80°	17.3	40.8	69.2	67.3	68.3
82.5°	14.2	31.7	47.7	49.6	48.3
85°	8.7	19.0	24.0	16.3	14.4
87.5°	3.1	7.0	4.4	4.4	4.4
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



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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	12.56	13.64	13.35	14.45	15.46	21.30	22.37	22.08	23.19	24.19
	3H	13.31	14.28	14.11	15.10	16.13	22.93	23.90	23.74	24.73	25.76
	4H	13.62	14.53	14.44	15.37	16.41	23.13	24.04	23.95	24.87	25.92
	6H	13.84	14.69	14.68	15.53	16.59	23.22	24.07	24.06	24.91	25.97
	8H	13.91	14.71	14.75	15.58	16.63	23.23	24.04	24.08	24.90	25.96
	12H	13.95	14.71	14.79	15.57	16.65	23.21	23.98	24.06	24.83	25.92
4H	2H	16.99	17.90	17.81	18.73	19.78	21.77	22.68	22.59	23.51	24.56
	3H	17.94	18.70	18.78	19.57	20.63	23.61	24.38	24.45	25.24	26.30
	4H	18.23	18.93	19.08	19.79	20.88	23.86	24.55	24.71	25.42	26.51
	6H	18.38	18.98	19.24	19.87	20.96	24.02	24.62	24.89	25.51	26.60
	8H	18.40	18.96	19.27	19.85	20.95	24.05	24.61	24.92	25.49	26.60
	12H	18.41	18.91	19.30	19.82	20.92	24.03	24.54	24.92	25.44	26.55
8H	4H	19.43	19.99	20.30	20.87	21.97	24.00	24.56	24.87	25.44	26.55
	6H	19.67	20.14	20.57	21.06	22.17	24.21	24.68	25.11	25.60	26.71
	8H	19.75	20.16	20.66	21.08	22.20	24.28	24.69	25.19	25.61	26.73
	12H	19.78	20.14	20.70	21.06	22.23	24.28	24.64	25.19	25.55	26.72
12H	4H	19.45	19.96	20.35	20.86	21.97	23.96	24.46	24.85	25.37	26.48
	6H	19.77	20.18	20.68	21.10	22.22	24.20	24.61	25.11	25.53	26.65
	8H	19.88	20.24	20.80	21.16	22.33	24.28	24.64	25.19	25.55	26.72