

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: P853826

Luminaire Tested: SQ2-FB-025U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853826
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-940-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

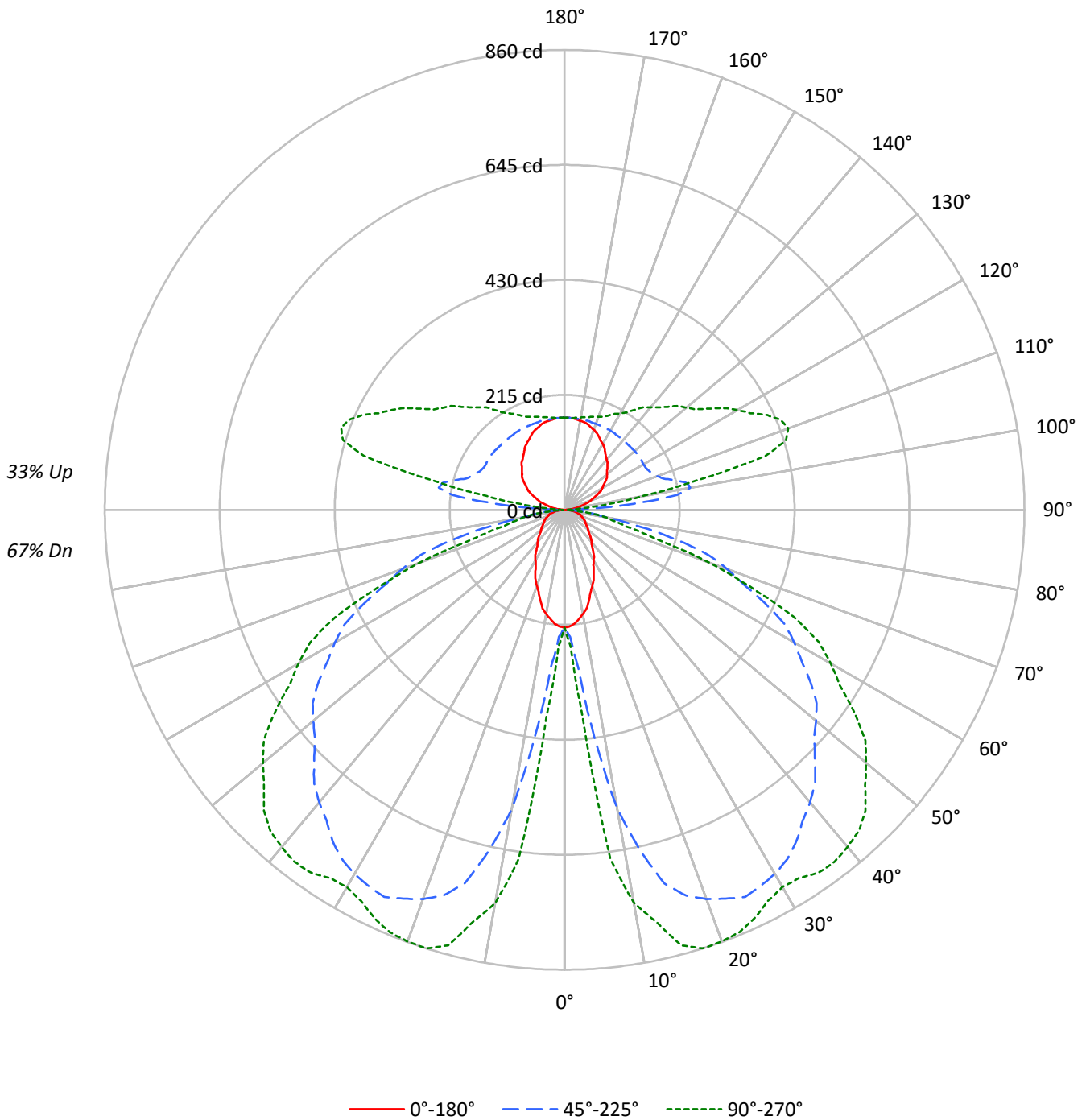
Lumens per Lamp: N/A
Luminaire Lumens: 3243.3 lumens
Efficiency: N/A
Efficacy: 128.7 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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									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	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°	3552	3552	3552
5°	3464	4801	6292
10°	3243	9296	12244
15°	2935	12094	14091
20°	2600	13304	14758
25°	2298	14227	15000
30°	2032	14652	15185
35°	1813	14907	16324
40°	1650	15049	17344
45°	1521	15120	18162
50°	1434	15410	18492
55°	1399	15812	18641
60°	1434	16020	18548
65°	1494	15801	18025
70°	1548	15281	13633
75°	1716	13724	7523
80°	1767	7085	6983
85°	1760	4891	2946

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 18807 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.9	1.1
10°-20°	168.3	5.2
20°-30°	296.0	9.1
30°-40°	383.2	11.8
40°-50°	422.6	13.0
50°-60°	394.6	12.2
60°-70°	305.0	9.4
70°-80°	140.7	4.3
80°-90°	27.3	0.8
90°-100°	69.7	2.1
100°-110°	216.8	6.7
110°-120°	212.1	6.5
120°-130°	173.1	5.3
130°-140°	141.6	4.4
140°-150°	110.5	3.4
150°-160°	79.8	2.5
160°-170°	48.8	1.5
170°-180°	16.4	0.5
0°-30°	501.2	15.5
0°-40°	884.3	27.3
0°-60°	1701.6	52.5
0°-90°	2174.5	67.0
90°-120°	498.5	15.4
90°-150°	923.8	28.5
90°-180°	1069.0	33.0
0°-180°	3243.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	220	220	220	220	220	
5°	214	245	296	361	388	20
15°	176	346	724	810	843	49
25°	129	465	799	834	842	59
35°	92	449	756	783	828	58
45°	67	344	662	760	795	52
55°	50	205	562	646	662	45
65°	39	116	414	464	472	38
75°	28	71	220	118	121	28
85°	10	21	26	18	16	10
90°	0	1	3	3	3	1
95°	10	28	128	47	31	11
105°	38	54	213	407	389	40
115°	68	80	173	357	418	67
125°	94	104	171	281	330	83
135°	113	125	170	243	273	87
145°	132	142	170	210	228	83
155°	151	156	171	188	194	70
165°	166	167	172	178	180	47
175°	172	172	172	173	172	16
180°	172	172	172	172	172	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	220.0	220.0	220.0	220.0	220.0
2.5°	218.3	227.4	237.8	249.7	254.7
5°	213.7	244.7	296.2	361.3	388.2
7.5°	205.4	268.5	430.7	605.0	658.8
10°	197.8	285.7	567.0	717.8	746.8
12.5°	189.3	308.7	652.4	758.5	788.3
15°	175.6	346.2	723.5	809.9	843.0
17.5°	161.4	388.5	756.5	841.8	859.8
20°	151.3	418.1	774.3	847.5	858.9
22.5°	142.0	440.2	787.0	842.5	854.7
25°	129.0	465.2	798.6	833.7	842.0
27.5°	116.6	471.7	793.5	816.6	824.6
30°	109.0	469.9	785.9	803.1	814.5
32.5°	102.2	464.8	774.9	791.6	816.2
35°	92.0	448.8	756.3	782.7	828.2
37.5°	83.4	423.2	731.8	785.9	829.7
40°	78.3	404.1	714.0	785.7	822.9
42.5°	73.2	381.6	693.7	777.3	814.5
45°	66.6	343.8	662.2	760.3	795.4
47.5°	60.5	301.3	633.0	736.8	762.4
50°	57.1	272.2	613.5	715.5	736.2
52.5°	53.7	244.0	594.0	690.1	709.1
55°	49.7	204.9	561.7	645.6	662.2
57.5°	46.1	171.3	524.9	596.5	609.9
60°	44.4	153.0	496.1	560.9	574.4
62.5°	41.9	136.4	463.9	523.7	536.3
65°	39.1	115.7	413.6	463.5	471.8
67.5°	35.3	100.3	360.1	390.6	375.1
70°	32.8	92.8	323.7	333.2	288.8
72.5°	31.1	84.5	283.9	258.7	174.5
75°	27.5	70.9	220.0	118.5	120.6
77.5°	22.4	54.9	144.7	91.0	92.9
80°	19.0	44.9	76.2	74.1	75.1
82.5°	15.7	34.9	52.5	54.5	53.1
85°	9.5	20.9	26.4	17.9	15.9
87.5°	3.4	7.7	4.9	4.9	4.9
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.9	40.4	13.3	10.8
95°	9.5	28.1	127.8	47.2	30.6
97.5°	17.3	36.5	211.7	131.8	83.0
100°	23.2	40.8	238.8	223.3	149.0
102.5°	29.2	45.9	233.7	319.0	250.4
105°	38.0	53.5	213.4	407.4	388.8
107.5°	46.9	61.4	194.0	414.2	434.6
110°	52.8	67.3	183.8	404.5	444.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.7	72.4	178.8	387.0	438.0
115°	67.6	80.0	173.3	357.4	418.4
117.5°	76.3	87.6	170.9	329.1	391.5
120°	81.3	92.7	170.1	313.0	372.9
122.5°	86.4	97.8	170.9	299.4	354.3
125°	94.0	104.4	171.1	281.1	329.6
127.5°	100.2	110.7	171.1	267.4	308.7
130°	103.5	114.9	171.1	259.7	296.9
132.5°	107.8	119.1	170.3	252.9	287.6
135°	113.0	125.4	170.1	242.6	272.6
137.5°	119.2	130.5	170.1	232.4	259.7
140°	122.6	133.9	170.1	225.6	250.4
142.5°	126.8	137.3	170.1	218.8	241.1
145°	132.1	142.4	170.1	209.6	228.2
147.5°	138.4	147.3	171.1	201.1	215.7
150°	142.6	149.9	171.1	196.8	208.1
152.5°	146.0	152.4	171.1	192.5	202.2
155°	151.1	156.2	171.1	188.2	194.4
157.5°	156.1	160.1	171.1	184.3	188.3
160°	159.5	162.6	171.1	181.8	184.9
162.5°	162.1	164.3	171.1	180.1	182.3
165°	165.9	166.9	172.2	177.5	179.6
167.5°	168.2	168.4	171.1	176.0	177.1
170°	169.0	170.1	171.1	174.3	175.4
172.5°	170.7	170.9	172.0	173.5	173.7
175°	172.2	172.2	172.2	173.2	172.2
177.5°	172.2	172.2	172.2	172.2	172.2
180°	172.2	172.2	172.2	172.2	172.2



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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	12.89	13.97	13.68	14.79	15.79	21.63	22.71	22.42	23.52	24.52
	3H	13.64	14.61	14.44	15.43	16.47	23.27	24.24	24.07	25.06	26.09
	4H	13.95	14.86	14.77	15.70	16.74	23.46	24.37	24.28	25.21	26.25
	6H	14.18	15.02	15.01	15.86	16.92	23.55	24.40	24.39	25.24	26.30
	8H	14.24	15.05	15.08	15.91	16.96	23.57	24.37	24.41	25.23	26.29
	12H	14.28	15.04	15.12	15.90	16.98	23.54	24.31	24.39	25.17	26.25
4H	2H	17.32	18.23	18.14	19.07	20.11	22.10	23.01	22.92	23.85	24.89
	3H	18.27	19.03	19.11	19.90	20.96	23.94	24.71	24.78	25.57	26.63
	4H	18.56	19.26	19.41	20.12	21.21	24.19	24.89	25.04	25.75	26.84
	6H	18.71	19.31	19.58	20.20	21.29	24.35	24.95	25.22	25.84	26.93
	8H	18.74	19.30	19.61	20.18	21.28	24.38	24.94	25.25	25.83	26.93
	12H	18.74	19.24	19.63	20.15	21.26	24.37	24.87	25.26	25.77	26.88
8H	4H	19.76	20.32	20.63	21.20	22.31	24.33	24.89	25.20	25.77	26.88
	6H	20.01	20.47	20.90	21.39	22.50	24.54	25.01	25.44	25.93	27.04
	8H	20.08	20.49	20.99	21.41	22.53	24.61	25.02	25.52	25.94	27.06
	12H	20.12	20.48	21.03	21.39	22.56	24.61	24.97	25.53	25.88	27.06
12H	4H	19.79	20.29	20.68	21.20	22.30	24.29	24.80	25.18	25.70	26.81
	6H	20.10	20.51	21.01	21.43	22.55	24.53	24.94	25.44	25.86	26.98
	8H	20.22	20.58	21.13	21.49	22.66	24.61	24.97	25.52	25.88	27.05