

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

(formerly Eaton)

Brand: CORELITE

Report Number: P518404

Luminaire Tested: **SQ4-BB-050U-050D-840-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518404  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G2-2009-966-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-BB-050U-050D-840-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

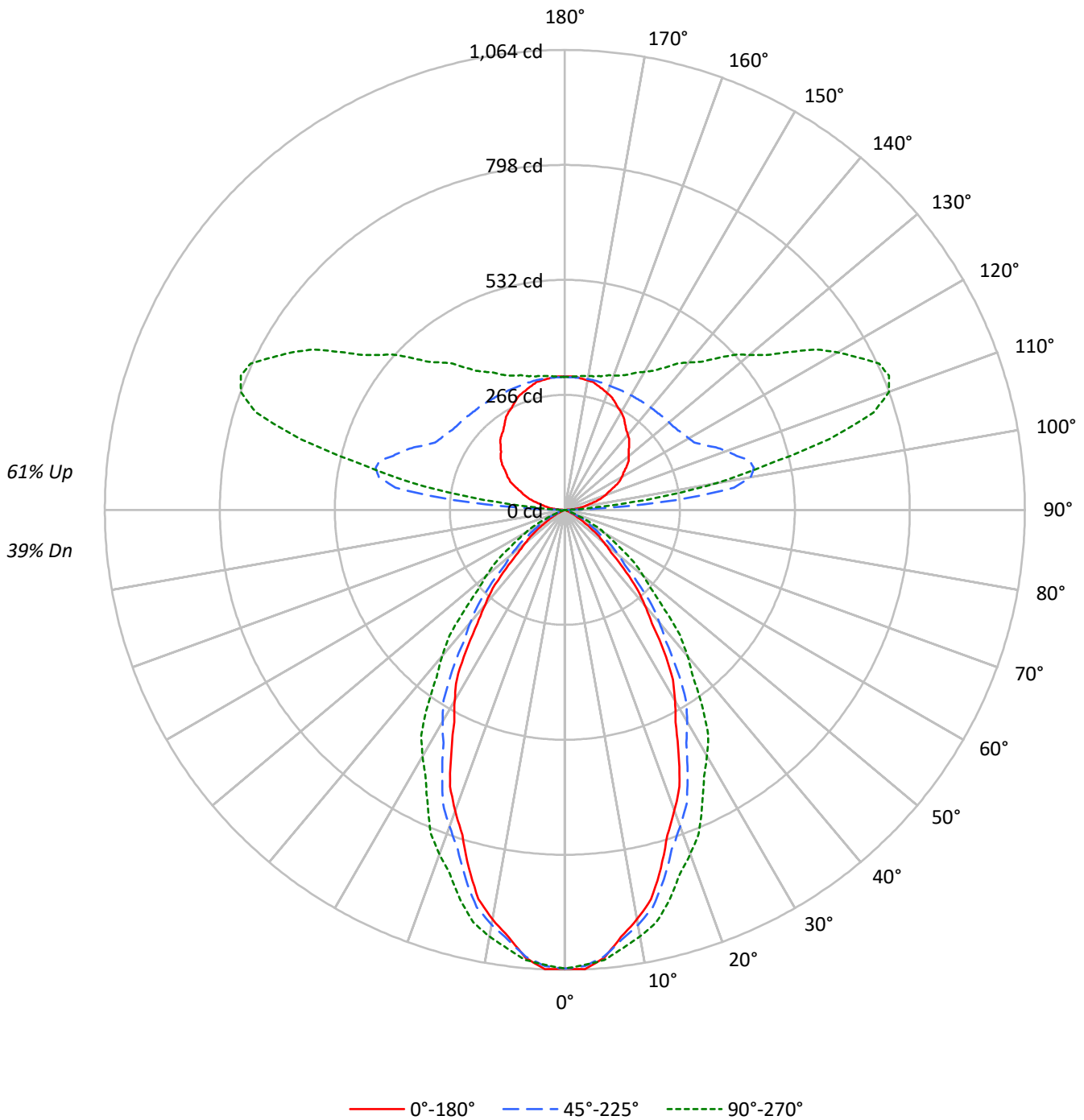
Lumens per Lamp: N/A  
Luminaire Lumens: 3279.2 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 28.5  
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: P518404  
CATALOG NUMBER: SQ4-BB-050U-050D-840-1D-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P518404

CATALOG NUMBER: SQ4-BB-050U-050D-840-1D-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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	97	93	90	87	88	85	82	79	69	68	66	55	54	53	42	42	41	35
2	89	83	77	73	81	76	71	67	63	59	57	50	48	47	39	38	37	32
3	82	74	68	63	75	68	62	58	56	53	49	46	43	41	36	34	33	29
4	76	66	60	54	69	61	55	51	51	47	43	42	39	37	33	31	30	26
5	70	60	53	47	64	55	49	44	46	42	38	38	35	33	31	29	27	24
6	65	54	47	42	59	50	44	39	42	38	34	35	32	29	28	26	25	22
7	61	50	42	37	55	46	40	35	39	34	31	32	29	27	26	24	22	20
8	56	45	38	33	52	42	36	32	36	31	28	30	27	24	25	22	21	18
9	53	42	35	30	48	39	33	29	33	29	25	28	25	22	23	21	19	17
10	49	38	32	27	45	36	30	26	31	26	23	26	23	20	22	19	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9792	9792	9792
5°	9635	9611	9682
10°	9014	9134	9390
15°	8195	8455	8926
20°	7274	7652	8323
25°	6335	6837	7647
30°	5426	6022	7007
35°	4500	5112	6234
40°	3457	4088	5313
45°	2499	3095	4274
50°	1702	2307	3390
55°	1107	1668	2635
60°	635	1175	1904
65°	168	718	965
70°	84	221	278
75°	36	18	0
80°	27	0	0
85°	0	0	0



TEST NUMBER: P518404

CATALOG NUMBER: SQ4-BB-050U-050D-840-1D-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.9	3.0
10°-20°	247.7	7.6
20°-30°	310.1	9.5
30°-40°	286.4	8.7
40°-50°	192.5	5.9
50°-60°	99.4	3.0
60°-70°	31.1	0.9
70°-80°	2.0	0.1
80°-90°	1.2	0.0
90°-100°	147.9	4.5
100°-110°	401.8	12.3
110°-120°	413.2	12.6
120°-130°	330.3	10.1
130°-140°	259.5	7.9
140°-150°	199.0	6.1
150°-160°	143.1	4.4
160°-170°	87.5	2.7
170°-180°	29.5	0.9
0°-30°	654.6	20.0
0°-40°	941.1	28.7
0°-60°	1232.9	37.6
0°-90°	1267.2	38.6
90°-120°	962.9	29.4
90°-150°	1751.8	53.4
90°-180°	2012.0	61.4
0°-180°	3279.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1040	1030	1038	1041	1045	96
15°	858	855	885	915	934	239
25°	622	627	672	718	751	285
35°	400	410	454	507	554	247
45°	192	203	237	283	328	150
55°	69	80	104	133	164	64
65°	8	15	33	40	44	13
75°	1	1	0	0	0	1
85°	0	0	0	0	0	0
90°	1	4	7	9	9	2
95°	22	81	258	112	75	23
105°	71	111	442	673	633	76
115°	127	154	354	704	802	125
125°	174	199	320	539	636	155
135°	210	233	311	439	495	162
145°	243	260	307	373	401	152
155°	274	284	305	335	345	127
165°	297	301	306	319	320	84
175°	308	309	307	311	310	29
180°	308	308	308	308	308	



TEST NUMBER: P518404

CATALOG NUMBER: SQ4-BB-050U-050D-840-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1061.3	1061.3	1061.3	1061.3	1061.3
2.5°	1063.8	1053.7	1056.4	1056.3	1053.5
5°	1040.3	1029.7	1037.7	1041.4	1045.4
7.5°	996.3	988.1	1003.4	1014.9	1023.2
10°	962.2	955.2	975.0	990.7	1002.3
12.5°	922.8	917.4	941.4	962.9	977.6
15°	858.0	855.0	885.2	914.9	934.5
17.5°	788.6	788.5	823.0	859.9	883.4
20°	740.9	742.4	779.4	820.1	847.7
22.5°	693.3	696.8	736.3	778.7	810.3
25°	622.3	627.3	671.6	717.5	751.2
27.5°	554.1	561.4	608.0	655.8	696.8
30°	509.3	517.9	565.3	615.6	657.7
32.5°	465.4	475.5	521.8	574.9	617.9
35°	399.5	409.5	453.9	507.3	553.5
37.5°	331.4	341.2	384.6	437.2	487.1
40°	287.0	298.1	339.4	390.4	441.1
42.5°	246.8	257.8	296.7	346.7	394.6
45°	191.5	203.1	237.2	283.4	327.6
47.5°	145.7	158.3	188.2	230.0	270.3
50°	118.6	131.2	160.7	197.5	236.2
52.5°	96.8	109.0	135.7	170.3	205.8
55°	68.8	80.3	103.7	133.2	163.8
57.5°	47.5	57.5	78.5	103.0	127.0
60°	34.4	43.9	63.7	83.6	103.2
62.5°	22.9	31.6	50.9	66.2	79.4
65°	7.7	14.7	32.9	39.6	44.2
67.5°	3.9	4.7	17.3	18.2	19.7
70°	3.1	3.1	8.2	8.8	10.3
72.5°	2.3	2.3	3.3	4.2	4.5
75°	1.0	1.0	0.5	0.0	0.0
77.5°	0.5	0.5	0.4	0.0	0.0
80°	0.5	0.5	0.0	0.0	0.0
82.5°	0.1	0.1	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.2	0.8	1.4	1.8	1.8
90°	1.0	3.9	6.9	8.9	8.9
92.5°	8.9	40.5	70.3	30.2	25.6
95°	21.8	80.9	257.6	112.1	75.3
97.5°	36.1	89.3	394.9	307.3	215.8
100°	45.6	95.0	437.0	442.9	357.7
102.5°	55.1	100.6	448.0	547.8	472.6
105°	71.3	111.1	441.9	672.9	633.1
107.5°	88.2	123.3	416.3	737.4	748.5
110°	100.1	132.0	397.3	750.1	797.6

TEST NUMBER: P518404

CATALOG NUMBER: SQ4-BB-050U-050D-840-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	<i>110.4</i>	140.8	378.3	739.6	811.1
115°	<i>126.8</i>	154.0	353.7	703.7	801.6
117.5°	<i>142.3</i>	168.2	338.1	652.9	763.1
120°	<i>152.6</i>	177.8	330.9	618.8	728.3
122.5°	<i>161.3</i>	186.5	326.2	584.6	690.2
125°	<i>174.4</i>	198.6	320.0	539.2	636.1
127.5°	<i>186.1</i>	210.1	316.7	504.8	588.0
130°	<i>193.2</i>	216.5	315.1	483.2	557.8
132.5°	<i>200.3</i>	223.6	313.5	464.8	530.9
135°	<i>210.1</i>	233.3	311.1	439.2	495.4
137.5°	<i>220.6</i>	241.7	309.9	416.6	463.9
140°	<i>226.9</i>	247.2	309.1	402.2	444.9
142.5°	<i>233.2</i>	252.0	308.3	391.0	426.6
145°	<i>242.8</i>	260.2	307.2	373.2	401.3
147.5°	<i>253.5</i>	268.4	306.2	359.2	381.3
150°	<i>260.6</i>	273.2	306.2	351.1	368.6
152.5°	<i>266.1</i>	277.2	305.4	343.9	358.3
155°	<i>274.5</i>	284.1	305.2	335.1	344.8
157.5°	<i>282.6</i>	290.1	305.2	329.1	336.5
160°	<i>287.3</i>	294.1	305.2	325.1	330.9
162.5°	<i>292.1</i>	297.3	306.0	321.9	326.2
165°	<i>297.2</i>	301.1	306.2	319.1	320.0
167.5°	<i>302.6</i>	304.5	307.2	315.7	316.5
170°	<i>304.2</i>	306.1	307.2	314.1	314.1
172.5°	<i>305.8</i>	306.9	307.2	312.5	312.5
175°	<i>308.1</i>	309.1	307.2	311.1	310.1
177.5°	<i>308.9</i>	308.9	306.6	309.7	308.1
180°	<i>308.1</i>	308.1	308.1	308.1	308.1

(END OF REPORT)