

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: P518444

Luminaire Tested: **SQ4-BB-050U-100D-830-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518444
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-100D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

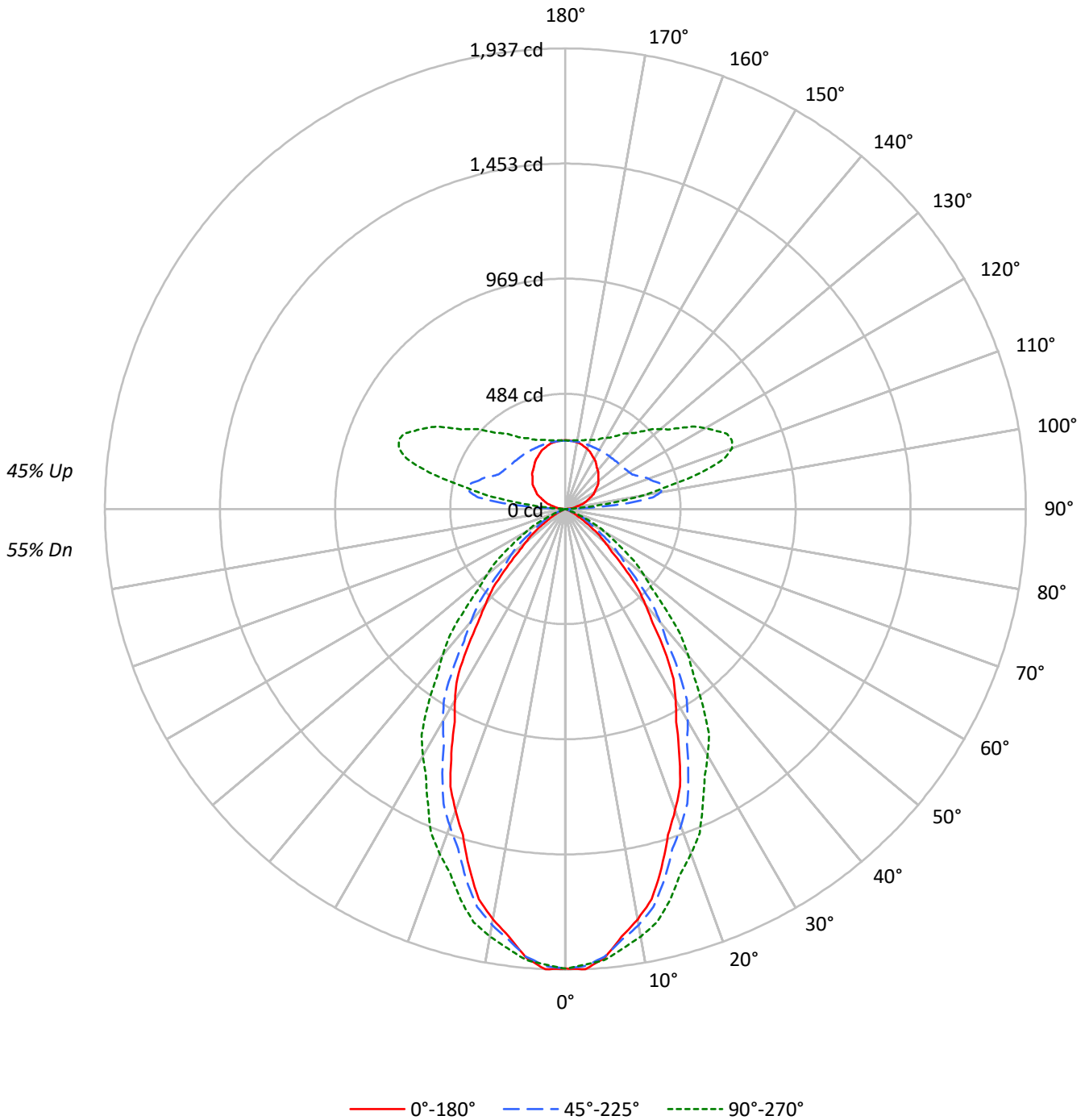
Lumens per Lamp: N/A
Luminaire Lumens: 4187.0 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 45.1
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: P518444
CATALOG NUMBER: SQ4-BB-050U-100D-830-1D-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P518444

CATALOG NUMBER: SQ4-BB-050U-100D-830-1D-UNV-STD-W-4

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	50	30	10	50	30	10	0																
RCR																																														
0	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55																												
1	101	97	94	91	94	91	88	86	78	77	75	67	66	65	57	56	55	50																												
2	94	87	82	78	87	82	77	74	71	68	65	61	59	57	52	51	50	45																												
3	87	79	72	67	81	74	68	64	65	61	57	56	53	51	48	46	45	41																												
4	80	71	64	59	75	67	61	56	59	54	51	52	48	46	45	42	40	37																												
5	75	65	57	52	70	61	55	50	54	49	45	47	44	41	41	39	37	34																												
6	70	59	52	46	65	56	49	45	49	44	41	44	40	37	38	36	33	31																												
7	65	54	47	42	61	51	45	40	46	41	37	41	37	34	36	33	31	28																												
8	61	50	43	38	57	47	41	36	42	37	34	38	34	31	33	30	28	26																												
9	57	46	39	34	53	44	37	33	39	34	31	35	31	28	31	28	26	24																												
10	54	42	36	31	50	40	34	30	36	32	28	33	29	26	29	26	24	22																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17833	17833	17833
5°	17547	17503	17633
10°	16417	16637	17101
15°	14925	15399	16256
20°	13249	13937	15159
25°	11538	12452	13927
30°	9883	10969	12762
35°	8194	9311	11354
40°	6295	7444	9675
45°	4551	5637	7784
50°	3100	4201	6175
55°	2015	3039	4798
60°	1157	2140	3469
65°	306	1305	1755
70°	151	405	504
75°	68	32	0
80°	48	0	0
85°	0	0	0



TEST NUMBER: P518444

CATALOG NUMBER: SQ4-BB-050U-100D-830-1D-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.4	4.2
10°-20°	451.1	10.8
20°-30°	564.7	13.5
30°-40°	521.6	12.5
40°-50°	350.5	8.4
50°-60°	181.0	4.3
60°-70°	56.7	1.4
70°-80°	3.6	0.1
80°-90°	1.2	0.0
90°-100°	138.2	3.3
100°-110°	375.5	9.0
110°-120°	386.1	9.2
120°-130°	308.7	7.4
130°-140°	242.5	5.8
140°-150°	186.0	4.4
150°-160°	133.7	3.2
160°-170°	81.8	2.0
170°-180°	27.6	0.7
0°-30°	1192.3	28.5
0°-40°	1713.9	40.9
0°-60°	2245.4	53.6
0°-90°	2306.9	55.1
90°-120°	899.8	21.5
90°-150°	1637.0	39.1
90°-180°	1880.0	44.9
0°-180°	4187.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1933	1933	1933	1933	1933	
5°	1895	1875	1890	1897	1904	176
15°	1563	1557	1612	1666	1702	435
25°	1133	1142	1223	1307	1368	520
35°	728	746	827	924	1008	451
45°	349	370	432	516	597	274
55°	125	146	189	242	298	117
65°	14	27	60	72	80	24
75°	2	2	1	0	0	3
85°	0	0	0	0	0	0
90°	1	4	6	8	8	1
95°	20	76	241	105	70	22
105°	67	104	413	629	592	71
115°	118	144	330	658	749	117
125°	163	186	299	504	594	145
135°	196	218	291	410	463	152
145°	227	243	287	349	375	142
155°	256	266	285	313	322	118
165°	278	281	286	298	299	78
175°	288	289	287	291	290	27
180°	288	288	288	288	288	



TEST NUMBER: P518444

CATALOG NUMBER: SQ4-BB-050U-100D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1932.9	1932.9	1932.9	1932.9	1932.9
2.5°	1937.4	1919.1	1923.9	1923.8	1918.7
5°	1894.6	1875.4	1889.9	1896.6	1903.9
7.5°	1814.5	1799.5	1827.4	1848.4	1863.5
10°	1752.4	1739.6	1775.8	1804.3	1825.4
12.5°	1680.6	1670.7	1714.5	1753.6	1780.5
15°	1562.6	1557.1	1612.2	1666.3	1701.9
17.5°	1436.2	1436.0	1498.8	1566.0	1609.0
20°	1349.4	1352.1	1419.5	1493.6	1543.9
22.5°	1262.6	1269.0	1341.0	1418.2	1475.8
25°	1133.4	1142.5	1223.2	1306.8	1368.1
27.5°	1009.2	1022.5	1107.4	1194.4	1269.0
30°	927.7	943.2	1029.6	1121.1	1197.9
32.5°	847.6	866.1	950.3	1047.1	1125.3
35°	727.5	745.8	826.7	924.0	1008.1
37.5°	603.5	621.5	700.4	796.2	887.1
40°	522.7	542.9	618.1	710.9	803.3
42.5°	449.4	469.5	540.3	631.5	718.7
45°	348.8	369.8	432.0	516.2	596.6
47.5°	265.4	288.2	342.8	418.9	492.3
50°	216.0	238.9	292.7	359.8	430.2
52.5°	176.4	198.5	247.1	310.2	374.8
55°	125.3	146.3	188.9	242.5	298.3
57.5°	86.6	104.7	142.9	187.6	231.4
60°	62.7	80.0	116.0	152.3	188.0
62.5°	41.7	57.6	92.8	120.6	144.6
65°	14.0	26.8	59.8	72.2	80.4
67.5°	7.1	8.6	31.4	33.2	35.9
70°	5.6	5.6	15.0	16.0	18.7
72.5°	4.1	4.1	6.0	7.7	8.2
75°	1.9	1.9	0.9	0.0	0.0
77.5°	0.9	0.9	0.7	0.0	0.0
80°	0.9	0.9	0.0	0.0	0.0
82.5°	0.2	0.2	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.2	0.7	1.3	1.7	1.7
90°	0.9	3.6	6.5	8.3	8.3
92.5°	8.3	37.8	65.7	28.2	23.9
95°	20.4	75.6	240.7	104.8	70.4
97.5°	33.7	83.5	369.1	287.1	201.7
100°	42.6	88.8	408.3	413.9	334.3
102.5°	51.5	94.0	418.7	511.9	441.7
105°	66.7	103.8	413.0	628.8	591.7
107.5°	82.4	115.2	389.1	689.1	699.4
110°	93.5	123.4	371.3	701.0	745.4

TEST NUMBER: P518444

CATALOG NUMBER: SQ4-BB-050U-100D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	103.1	131.6	353.5	691.1	757.9
115°	118.5	143.9	330.5	657.6	749.1
117.5°	133.0	157.2	315.9	610.1	713.1
120°	142.6	166.1	309.3	578.2	680.5
122.5°	150.7	174.3	304.8	546.3	645.0
125°	163.0	185.6	299.1	503.9	594.4
127.5°	173.9	196.3	295.9	471.8	549.4
130°	180.6	202.3	294.4	451.6	521.3
132.5°	187.2	208.9	293.0	434.4	496.1
135°	196.3	218.0	290.7	410.4	463.0
137.5°	206.1	225.8	289.6	389.3	433.5
140°	212.0	231.0	288.9	375.9	415.7
142.5°	218.0	235.5	288.1	365.4	398.7
145°	226.8	243.1	287.0	348.7	375.0
147.5°	236.8	250.8	286.1	335.6	356.3
150°	243.5	255.3	286.1	328.1	344.4
152.5°	248.7	259.0	285.4	321.4	334.8
155°	256.5	265.5	285.2	313.2	322.2
157.5°	264.1	271.1	285.2	307.6	314.4
160°	268.5	274.9	285.2	303.8	309.3
162.5°	273.0	277.8	285.9	300.8	304.8
165°	277.8	281.4	286.1	298.2	299.1
167.5°	282.8	284.6	287.0	295.0	295.7
170°	284.3	286.1	287.0	293.5	293.5
172.5°	285.7	286.8	287.0	292.0	292.0
175°	288.0	288.9	287.0	290.7	289.8
177.5°	288.7	288.7	286.5	289.4	288.0
180°	288.0	288.0	288.0	288.0	288.0

(END OF REPORT)