

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: P518447

Luminaire Tested: **SQ4-BB-050U-100D-835-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518447
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-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

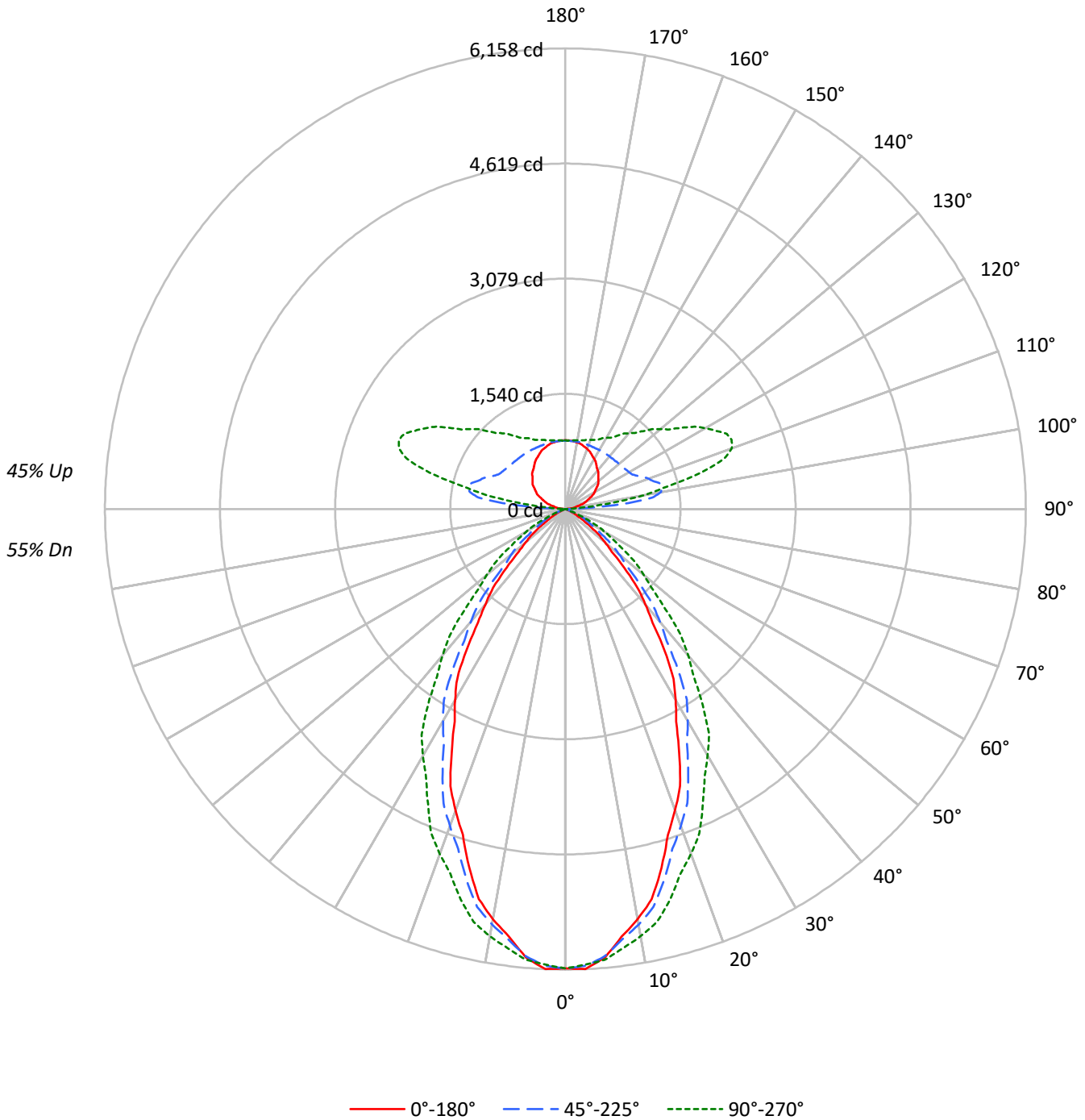
Lumens per Lamp: N/A
Luminaire Lumens: 13307.9 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 134.4
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									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°	18893	18893	18893
5°	18590	18544	18681
10°	17394	17626	18117
15°	15813	16314	17223
20°	14036	14766	16059
25°	12224	13192	14755
30°	10470	11620	13520
35°	8681	9864	12029
40°	6670	7887	10250
45°	4822	5972	8247
50°	3285	4451	6541
55°	2136	3219	5084
60°	1225	2267	3674
65°	325	1384	1860
70°	160	428	534
75°	70	36	0
80°	53	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	560.7	4.2
10°-20°	1433.8	10.8
20°-30°	1794.9	13.5
30°-40°	1657.9	12.5
40°-50°	1114.0	8.4
50°-60°	575.4	4.3
60°-70°	180.2	1.4
70°-80°	11.4	0.1
80°-90°	3.7	0.0
90°-100°	439.4	3.3
100°-110°	1193.5	9.0
110°-120°	1227.1	9.2
120°-130°	981.1	7.4
130°-140°	770.9	5.8
140°-150°	591.1	4.4
150°-160°	425.1	3.2
160°-170°	260.0	2.0
170°-180°	87.6	0.7
0°-30°	3789.4	28.5
0°-40°	5447.3	40.9
0°-60°	7136.8	53.6
0°-90°	7332.1	55.1
90°-120°	2860.0	21.5
90°-150°	5203.1	39.1
90°-180°	5976.0	44.9
0°-180°	13307.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6143	6143	6143	6143	6143	
5°	6022	5961	6007	6028	6051	558
15°	4966	4949	5124	5296	5409	1383
25°	3602	3631	3888	4154	4348	1651
35°	2312	2370	2627	2937	3204	1432
45°	1109	1176	1373	1640	1896	871
55°	398	465	600	771	948	372
65°	45	85	190	230	256	75
75°	6	6	3	0	0	9
85°	0	0	0	0	0	1
90°	3	12	21	26	26	5
95°	65	240	765	333	224	69
105°	212	330	1312	1998	1880	225
115°	377	457	1051	2090	2381	372
125°	518	590	950	1602	1889	462
135°	624	693	924	1304	1471	482
145°	721	773	912	1108	1192	453
155°	815	844	906	995	1024	376
165°	883	894	909	948	950	249
175°	915	918	912	924	921	87
180°	915	915	915	915	915	

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CATALOG NUMBER: SQ4-BB-050U-100D-835-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6143.4	6143.4	6143.4	6143.4	6143.4
2.5°	6157.7	6099.6	6114.9	6114.5	6098.3
5°	6021.6	5960.6	6006.7	6028.1	6051.3
7.5°	5767.2	5719.5	5808.2	5874.7	5922.9
10°	5569.8	5529.1	5644.1	5734.8	5801.6
12.5°	5341.6	5310.2	5449.2	5573.5	5659.0
15°	4966.5	4949.0	5124.0	5296.0	5409.3
17.5°	4564.6	4564.1	4763.8	4977.3	5113.9
20°	4288.8	4297.5	4511.7	4747.2	4907.0
22.5°	4013.0	4033.3	4262.1	4507.6	4690.7
25°	3602.3	3631.3	3887.6	4153.6	4348.3
27.5°	3207.6	3250.0	3519.6	3796.1	4033.2
30°	2948.4	2997.8	3272.3	3563.2	3807.3
32.5°	2694.0	2752.7	3020.3	3327.9	3576.7
35°	2312.3	2370.5	2627.4	2936.6	3204.0
37.5°	1918.2	1975.2	2226.1	2530.5	2819.4
40°	1661.4	1725.4	1964.6	2259.6	2553.1
42.5°	1428.4	1492.4	1717.3	2007.2	2284.4
45°	1108.6	1175.5	1373.1	1640.5	1896.2
47.5°	843.5	916.2	1089.6	1331.5	1564.5
50°	686.6	759.2	930.3	1143.4	1367.2
52.5°	560.5	630.9	785.2	986.1	1191.2
55°	398.3	465.1	600.4	770.8	948.1
57.5°	275.2	332.8	454.1	596.4	735.3
60°	199.1	254.4	368.5	484.1	597.4
62.5°	132.6	183.1	294.8	383.4	459.5
65°	44.6	85.3	190.2	229.5	255.6
67.5°	22.6	27.2	99.9	105.4	114.1
70°	17.8	17.8	47.6	50.7	59.4
72.5°	13.1	13.1	19.0	24.4	26.2
75°	5.9	5.9	3.0	0.0	0.0
77.5°	3.0	3.0	2.4	0.0	0.0
80°	3.0	3.0	0.0	0.0	0.0
82.5°	0.6	0.6	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.6	2.3	4.1	5.3	5.3
90°	2.9	11.6	20.6	26.5	26.5
92.5°	26.5	120.3	208.9	89.7	75.9
95°	64.7	240.3	765.1	333.0	223.7
97.5°	107.1	265.4	1173.0	912.6	641.0
100°	135.4	282.1	1297.8	1315.6	1062.4
102.5°	163.6	298.9	1330.8	1627.0	1403.7
105°	211.9	329.9	1312.5	1998.4	1880.5
107.5°	261.9	366.1	1236.6	2190.2	2223.0
110°	297.2	392.2	1180.1	2228.0	2369.0



TEST NUMBER: P518447

CATALOG NUMBER: SQ4-BB-050U-100D-835-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	327.8	418.2	1123.6	2196.7	2409.0
115°	376.7	457.3	1050.6	2090.1	2380.8
117.5°	422.6	499.7	1004.1	1939.1	2266.6
120°	453.2	528.0	982.9	1837.8	2163.0
122.5°	479.1	553.9	968.8	1736.3	2050.0
125°	517.9	589.9	950.5	1601.6	1889.3
127.5°	552.7	624.0	940.5	1499.4	1746.3
130°	573.9	642.9	935.8	1435.3	1656.8
132.5°	595.0	664.1	931.1	1380.5	1576.8
135°	623.9	692.9	924.1	1304.5	1471.4
137.5°	655.1	717.8	920.5	1237.4	1377.8
140°	673.9	734.3	918.2	1194.7	1321.3
142.5°	692.7	748.6	915.8	1161.3	1267.2
145°	721.0	772.8	912.3	1108.4	1191.8
147.5°	752.8	797.1	909.3	1066.8	1132.4
150°	774.0	811.4	909.3	1042.9	1094.7
152.5°	790.4	823.2	907.0	1021.5	1064.1
155°	815.2	843.9	906.4	995.3	1024.1
157.5°	839.3	861.7	906.4	977.5	999.4
160°	853.4	873.6	906.4	965.6	982.9
162.5°	867.5	883.1	908.7	956.1	968.8
165°	882.9	894.4	909.3	947.7	950.5
167.5°	898.7	904.5	912.3	937.6	939.9
170°	903.5	909.2	912.3	932.9	932.9
172.5°	908.2	911.6	912.3	928.2	928.2
175°	915.2	918.1	912.3	924.0	921.1
177.5°	917.6	917.6	910.5	919.8	915.2
180°	915.2	915.2	915.2	915.2	915.2

(END OF REPORT)