

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: P518751

Luminaire Tested: **SQ4-BB-100U-100D-940-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518751
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, 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-100U-100D-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

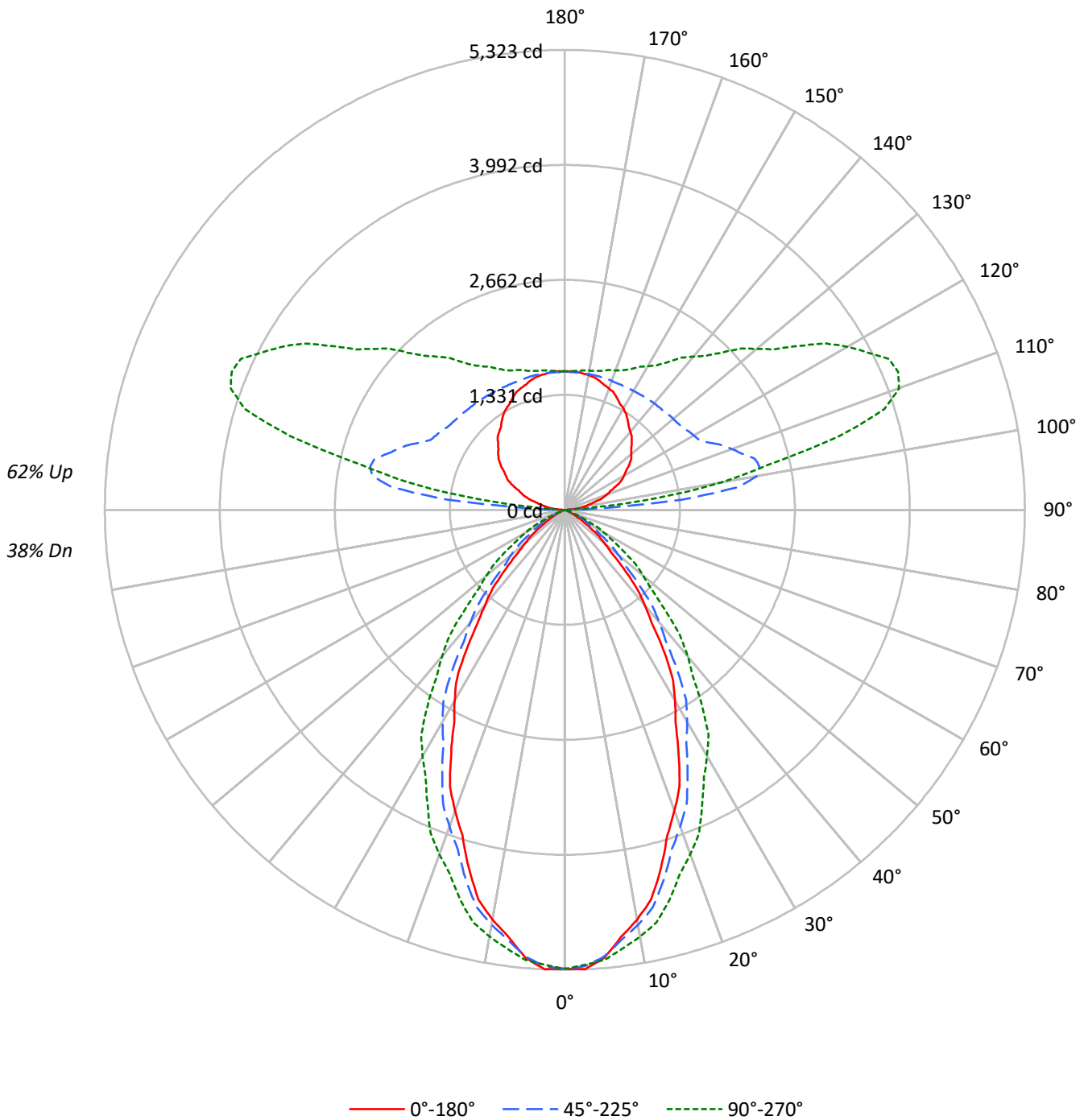
Lumens per Lamp: N/A
Luminaire Lumens: 16754.8 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 182.2
Input Voltage (V): 120
Input Current (A_{in}): 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	
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	60	60	60	45	45	45	38
1	96	93	89	86	87	84	82	79	69	67	65	55	54	53	42	41	41	35
2	89	83	77	73	81	75	71	67	62	59	56	50	48	46	38	37	36	31
3	82	74	67	62	75	68	62	58	56	52	49	45	43	41	35	34	33	28
4	76	66	59	54	69	61	55	50	51	46	43	41	38	36	33	31	29	25
5	70	60	53	47	64	55	49	44	46	42	38	38	35	32	30	28	27	23
6	65	54	47	42	59	50	44	39	42	37	34	35	31	29	28	26	24	21
7	60	49	42	37	55	46	39	35	39	34	31	32	29	26	26	24	22	19
8	56	45	38	33	51	42	36	31	36	31	28	30	26	24	24	22	20	18
9	53	41	35	30	48	38	32	28	33	28	25	28	24	22	23	20	19	16
10	49	38	32	27	45	36	30	26	30	26	23	26	22	20	21	19	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16333	16333	16333
5°	16070	16031	16149
10°	15036	15237	15662
15°	13670	14103	14889
20°	12134	12765	13883
25°	10567	11404	12756
30°	9051	10046	11688
35°	7505	8527	10399
40°	5766	6818	8861
45°	4168	5163	7130
50°	2840	3848	5655
55°	1846	2783	4395
60°	1059	1960	3176
65°	280	1196	1608
70°	138	370	462
75°	61	31	0
80°	46	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	484.7	2.9
10°-20°	1239.5	7.4
20°-30°	1551.7	9.3
30°-40°	1433.3	8.6
40°-50°	963.1	5.7
50°-60°	497.4	3.0
60°-70°	155.8	0.9
70°-80°	9.8	0.1
80°-90°	3.5	0.0
90°-100°	750.7	4.5
100°-110°	2072.5	12.4
110°-120°	2137.5	12.8
120°-130°	1717.6	10.3
130°-140°	1349.9	8.1
140°-150°	1035.3	6.2
150°-160°	744.1	4.4
160°-170°	455.0	2.7
170°-180°	153.4	0.9
0°-30°	3275.8	19.6
0°-40°	4709.1	28.1
0°-60°	6169.6	36.8
0°-90°	6338.7	37.8
90°-120°	4960.7	29.6
90°-150°	9063.6	54.1
90°-180°	10416.0	62.2
0°-180°	16754.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5311	5311	5311	5311	5311	
5°	5206	5153	5193	5211	5231	483
15°	4293	4278	4430	4578	4676	1196
25°	3114	3139	3361	3591	3759	1428
35°	1999	2049	2271	2539	2770	1238
45°	958	1016	1187	1418	1639	753
55°	344	402	519	666	820	321
65°	38	74	164	198	221	65
75°	5	5	3	0	0	7
85°	0	0	0	0	0	1
90°	5	10	20	23	26	8
95°	110	406	1362	560	364	118
105°	369	570	2280	3481	3278	393
115°	662	800	1836	3636	4135	650
125°	908	1033	1665	2817	3306	808
135°	1093	1210	1618	2282	2573	845
145°	1267	1355	1598	1942	2090	793
155°	1429	1476	1585	1743	1798	658
165°	1547	1567	1593	1655	1667	436
175°	1603	1606	1595	1618	1613	152
180°	1603	1603	1603	1603	1603	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5310.9	5310.9	5310.9	5310.9	5310.9
2.5°	5323.2	5273.0	5286.2	5285.9	5271.8
5°	5205.5	5152.8	5192.7	5211.1	5231.2
7.5°	4985.6	4944.4	5021.1	5078.5	5120.2
10°	4815.0	4779.8	4879.2	4957.6	5015.4
12.5°	4617.7	4590.5	4710.7	4818.2	4892.1
15°	4293.4	4278.3	4429.6	4578.3	4676.3
17.5°	3946.0	3945.5	4118.2	4302.8	4420.9
20°	3707.6	3715.1	3900.3	4103.9	4242.0
22.5°	3469.2	3486.8	3684.5	3896.7	4055.0
25°	3114.1	3139.2	3360.7	3590.7	3759.0
27.5°	2772.9	2809.5	3042.7	3281.6	3486.6
30°	2548.8	2591.5	2828.9	3080.3	3291.4
32.5°	2328.9	2379.6	2611.0	2876.9	3092.0
35°	1999.0	2049.2	2271.3	2538.7	2769.8
37.5°	1658.3	1707.5	1924.5	2187.6	2437.3
40°	1436.3	1491.5	1698.4	1953.4	2207.1
42.5°	1234.8	1290.1	1484.6	1735.1	1974.8
45°	958.4	1016.2	1187.0	1418.2	1639.3
47.5°	729.2	792.0	941.9	1151.0	1352.5
50°	593.5	656.3	804.2	988.5	1181.9
52.5°	484.6	545.4	678.8	852.4	1029.8
55°	344.3	402.1	519.0	666.4	819.6
57.5°	237.9	287.7	392.6	515.6	635.7
60°	172.1	219.9	318.6	418.5	516.4
62.5°	114.6	158.3	254.9	331.4	397.2
65°	38.5	73.7	164.4	198.4	221.0
67.5°	19.5	23.5	86.3	91.1	98.7
70°	15.4	15.4	41.1	43.9	51.4
72.5°	11.3	11.3	16.4	21.1	22.6
75°	5.1	5.1	2.6	0.0	0.0
77.5°	2.6	2.6	2.1	0.0	0.0
80°	2.6	2.6	0.0	0.0	0.0
82.5°	0.5	0.5	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	2.0	4.1	4.6	5.1
90°	5.1	10.1	20.5	23.1	25.6
92.5°	46.2	191.6	342.7	125.1	97.5
95°	110.3	406.2	1362.0	559.8	364.2
97.5°	182.6	455.0	2017.6	1553.3	1125.0
100°	236.0	484.3	2259.7	2275.7	1849.3
102.5°	287.3	517.5	2306.9	2811.8	2407.5
105°	369.4	570.0	2280.2	3481.2	3278.0
107.5°	456.6	635.1	2153.0	3804.0	3878.2
110°	518.1	678.6	2054.5	3873.4	4114.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	573.5	728.0	1962.2	3818.6	4173.7
115°	661.8	799.7	1836.5	3635.6	4134.7
117.5°	738.7	876.1	1753.9	3378.1	3945.9
120°	790.0	925.4	1721.1	3203.8	3775.6
122.5°	839.3	968.7	1694.4	3041.0	3582.7
125°	908.0	1033.4	1664.7	2817.2	3306.2
127.5°	966.5	1091.9	1647.2	2627.9	3049.7
130°	1005.5	1130.9	1639.0	2512.1	2895.8
132.5°	1042.4	1161.8	1630.8	2414.9	2762.5
135°	1092.7	1210.5	1618.5	2281.7	2572.7
137.5°	1149.1	1256.4	1612.3	2170.0	2418.2
140°	1179.9	1285.2	1608.2	2095.4	2313.6
142.5°	1214.8	1312.1	1604.1	2029.1	2221.3
145°	1267.1	1354.9	1598.0	1942.5	2090.4
147.5°	1317.4	1394.1	1592.3	1869.4	1984.2
150°	1354.3	1417.0	1590.3	1825.8	1918.6
152.5°	1383.0	1441.7	1588.2	1788.5	1865.2
155°	1428.7	1476.3	1585.1	1742.9	1798.0
157.5°	1470.7	1507.4	1585.7	1709.6	1747.2
160°	1495.4	1528.0	1587.7	1690.9	1718.5
162.5°	1515.9	1544.5	1589.8	1674.4	1695.9
165°	1546.7	1566.7	1592.8	1654.7	1667.2
167.5°	1570.3	1582.3	1595.4	1642.7	1646.7
170°	1582.6	1592.6	1595.4	1636.4	1636.4
172.5°	1592.8	1598.9	1595.4	1628.2	1626.2
175°	1603.1	1605.6	1595.4	1618.4	1613.4
177.5°	1607.2	1605.2	1594.9	1609.2	1605.1
180°	1603.1	1603.1	1603.1	1603.1	1603.1

(END OF REPORT)