

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: P521202

Luminaire Tested: SQ4-BB-100U-075D-92765-1D-UNV-STD-W-4_5000K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521202
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2009-966-12)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-BB-100U-075D-92765-1D-UNV-STD-W-4_5000K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6602.1 lumens
Efficiency: N/A
Efficacy: 103.0 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

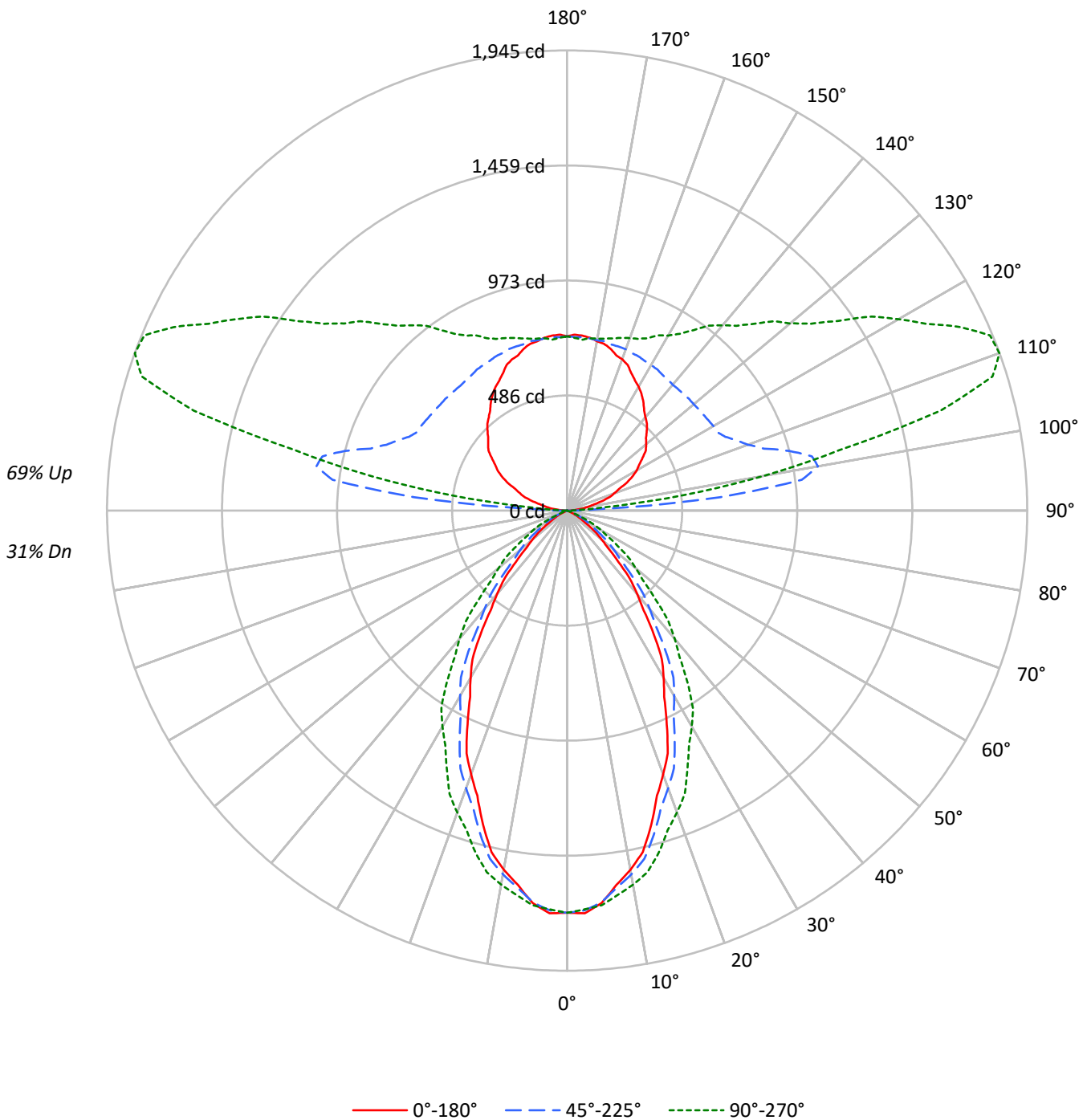
Input Watts (W): 64.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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	0														
RCR																																						
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	38	38	38	31																				
1	95	91	87	84	85	82	79	77	65	63	62	50	49	48	36	35	35	28																				
2	87	81	75	71	78	73	68	65	58	55	53	45	43	42	33	32	31	25																				
3	80	72	65	60	72	65	60	55	53	49	46	41	38	36	30	29	28	23																				
4	74	64	57	52	66	58	52	48	47	43	40	37	34	32	28	26	25	21																				
5	68	58	51	45	61	53	46	42	43	39	35	34	31	29	25	24	22	19																				
6	63	52	45	40	57	48	41	37	39	35	31	31	28	26	24	22	20	17																				
7	58	47	40	35	53	43	37	33	36	31	28	29	25	23	22	20	18	16																				
8	54	43	36	31	49	40	34	29	33	28	25	26	23	21	20	18	17	14																				
9	51	40	33	28	46	36	30	26	30	26	23	24	21	19	19	17	16	13																				
10	48	36	30	25	43	34	28	24	28	24	21	23	20	18	18	16	14	12																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15683	15683	15683
5°	15430	15393	15506
10°	14438	14631	15038
15°	13126	13542	14296
20°	11651	12256	13330
25°	10146	10950	12248
30°	8691	9646	11222
35°	7206	8188	9985
40°	5537	6547	8508
45°	4002	4957	6846
50°	2727	3695	5430
55°	1773	2672	4219
60°	1017	1882	3050
65°	269	1148	1543
70°	132	356	442
75°	57	29	0
80°	43	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6846 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.1	2.3
10°-20°	396.7	6.0
20°-30°	496.6	7.5
30°-40°	458.7	6.9
40°-50°	308.2	4.7
50°-60°	159.2	2.4
60°-70°	49.9	0.8
70°-80°	3.1	0.0
80°-90°	0.1	0.0
90°-100°	335.6	5.1
100°-110°	954.8	14.5
110°-120°	914.8	13.9
120°-130°	724.0	11.0
130°-140°	581.1	8.8
140°-150°	455.0	6.9
150°-160°	332.9	5.0
160°-170°	206.2	3.1
170°-180°	70.0	1.1
0°-30°	1048.5	15.9
0°-40°	1507.2	22.8
0°-60°	1974.7	29.9
0°-90°	2027.7	30.7
90°-120°	2205.2	33.4
90°-150°	3965.3	60.1
90°-180°	4574.0	69.3
0°-180°	6602.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1666	1649	1662	1668	1674	154
15°	1374	1369	1418	1465	1497	383
25°	997	1005	1076	1149	1203	457
35°	640	656	727	812	886	396
45°	307	325	380	454	525	241
55°	110	129	166	213	262	103
65°	12	24	53	64	71	21
75°	2	2	1	0	0	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	2
95°	36	144	650	225	139	42
105°	148	225	973	1719	1634	157
115°	276	333	738	1563	1835	272
125°	389	432	704	1169	1397	348
135°	476	516	696	987	1116	367
145°	561	590	701	854	931	351
155°	641	656	718	772	804	296
165°	708	711	727	742	753	199
175°	742	738	735	731	725	70
180°	736	736	736	736	736	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1699.8	1699.8	1699.8	1699.8	1699.8
2.5°	1703.8	1687.7	1691.9	1691.8	1687.3
5°	1666.1	1649.2	1662.0	1667.9	1674.3
7.5°	1595.7	1582.5	1607.1	1625.5	1638.8
10°	1541.1	1529.8	1561.7	1586.8	1605.2
12.5°	1477.9	1469.3	1507.7	1542.1	1565.8
15°	1374.2	1369.3	1417.8	1465.3	1496.7
17.5°	1263.0	1262.8	1318.1	1377.2	1415.0
20°	1186.7	1189.1	1248.3	1313.5	1357.7
22.5°	1110.4	1116.0	1179.3	1247.2	1297.9
25°	996.7	1004.7	1075.6	1149.2	1203.1
27.5°	887.5	899.2	973.8	1050.3	1115.9
30°	815.8	829.5	905.4	985.9	1053.4
32.5°	745.4	761.6	835.7	920.8	989.6
35°	639.8	655.9	727.0	812.5	886.5
37.5°	530.8	546.5	615.9	700.2	780.1
40°	459.7	477.4	543.6	625.2	706.4
42.5°	395.2	412.9	475.2	555.4	632.1
45°	306.7	325.2	379.9	453.9	524.7
47.5°	233.4	253.5	301.5	368.4	432.9
50°	190.0	210.1	257.4	316.4	378.3
52.5°	155.1	174.6	217.3	272.8	329.6
55°	110.2	128.7	166.1	213.3	262.3
57.5°	76.2	92.1	125.7	165.0	203.5
60°	55.1	70.4	102.0	133.9	165.3
62.5°	36.7	50.7	81.6	106.1	127.1
65°	12.3	23.6	52.6	63.5	70.7
67.5°	6.2	7.5	27.6	29.2	31.6
70°	4.9	4.9	13.2	14.0	16.4
72.5°	3.6	3.6	5.3	6.8	7.2
75°	1.6	1.6	0.8	0.0	0.0
77.5°	0.8	0.8	0.7	0.0	0.0
80°	0.8	0.8	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°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0
92.5°	11.2	59.4	137.8	40.1	30.2
95°	36.4	144.5	649.6	224.8	138.6
97.5°	66.9	169.3	1000.5	715.9	490.6
100°	88.2	184.0	1076.6	1090.5	840.0
102.5°	111.7	199.9	1059.8	1395.9	1177.1
105°	148.4	225.1	973.0	1718.7	1633.8
107.5°	185.6	254.4	871.7	1809.7	1885.3
110°	211.4	275.7	813.4	1774.9	1944.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	236.0	297.1	774.2	1692.5	1934.6
115°	275.8	333.3	737.8	1563.0	1835.4
117.5°	310.8	364.7	716.3	1421.4	1710.0
120°	338.8	384.0	714.0	1340.5	1617.0
122.5°	361.2	406.4	708.4	1269.5	1526.3
125°	389.2	431.6	704.2	1168.6	1397.2
127.5°	419.7	459.4	702.0	1108.3	1296.7
130°	435.4	475.1	698.6	1066.4	1230.6
132.5°	452.2	490.8	698.6	1033.6	1184.7
135°	476.0	515.7	695.8	987.1	1115.8
137.5°	498.4	537.0	695.5	947.8	1059.0
140°	515.2	554.9	694.4	915.2	1022.0
142.5°	534.3	567.4	697.8	889.2	985.1
145°	561.4	590.2	701.4	854.4	931.0
147.5°	584.7	612.6	707.6	819.1	885.4
150°	604.8	624.0	709.8	807.5	854.0
152.5°	620.5	640.8	712.1	791.7	835.0
155°	641.2	656.3	718.2	772.1	803.6
157.5°	667.0	676.0	719.6	763.2	785.7
160°	680.4	687.3	725.2	756.5	775.6
162.5°	688.3	696.2	726.3	750.8	765.5
165°	708.4	711.2	726.6	742.3	753.2
167.5°	722.1	719.7	733.1	740.2	744.5
170°	726.6	725.2	730.8	732.3	737.8
172.5°	736.7	732.0	734.2	730.1	734.5
175°	742.0	737.9	735.0	730.7	725.2
177.5°	744.3	737.7	734.2	729.7	730.8
180°	736.4	736.4	736.4	736.4	736.4

(END OF REPORT)