

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: P521189

Luminaire Tested: SQ4-BB-100U-050D-92765-1D-UNV-STD-W-4\_5000K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521189  
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-050D-92765-1D-UNV-STD-W-4\_5000K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 500 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: 5928.3 lumens  
Efficiency: N/A  
Efficacy: 111.9 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

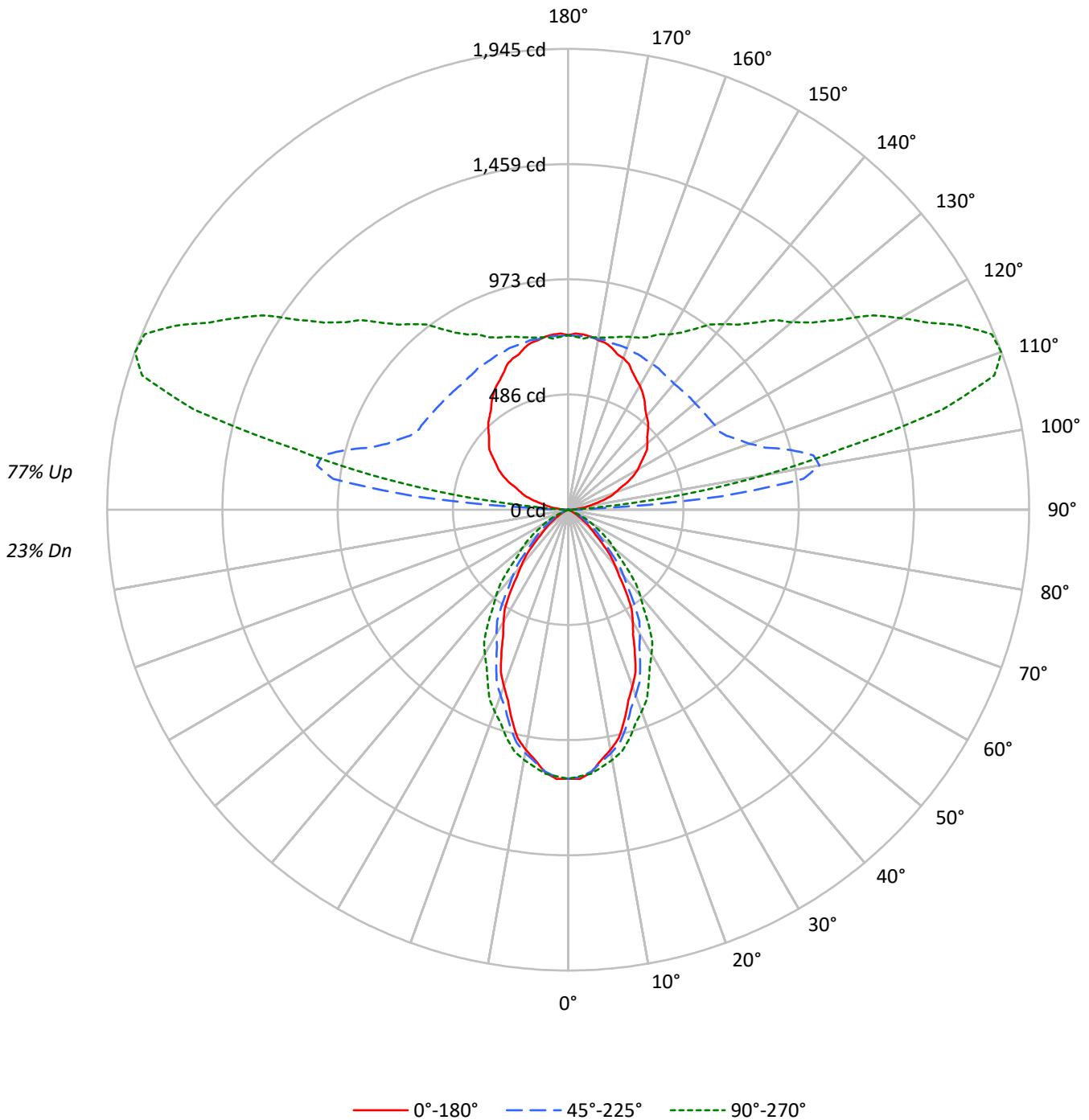
Input Watts (W): 53  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20			
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	101	101	101	101	89	89	89	89	68	68	68		49	49	49		31	31	31	23
1	93	89	85	82	82	79	76	74	61	59	57		44	43	42		29	28	28	21
2	85	78	73	68	75	70	66	62	54	51	49		40	38	37		26	25	25	19
3	78	70	63	58	69	62	57	53	49	45	42		36	34	32		24	23	22	17
4	72	62	55	50	64	56	50	45	44	40	36		32	30	28		22	21	20	15
5	66	56	48	43	59	50	44	39	39	35	32		30	27	25		20	19	18	14
6	61	50	43	37	54	45	39	34	36	31	28		27	24	22		19	17	16	13
7	56	45	38	33	50	41	35	30	33	28	25		25	22	20		17	16	15	12
8	52	41	34	29	47	37	31	27	30	25	22		23	20	18		16	15	13	11
9	49	38	31	26	44	34	28	24	27	23	20		21	18	16		15	13	12	10
10	46	35	28	24	41	31	26	22	25	21	18		20	17	15		14	12	11	9

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

	0°	45°	90°
0°	10472	10472	10472
5°	10303	10277	10354
10°	9640	9770	10042
15°	8765	9043	9546
20°	7780	8184	8901
25°	6775	7311	8178
30°	5803	6441	7494
35°	4812	5467	6667
40°	3697	4372	5681
45°	2672	3310	4571
50°	1820	2467	3626
55°	1184	1784	2818
60°	679	1257	2037
65°	179	766	1030
70°	89	237	297
75°	39	18	0
80°	27	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4571 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.6	1.7
10°-20°	264.9	4.5
20°-30°	331.6	5.6
30°-40°	306.3	5.2
40°-50°	205.8	3.5
50°-60°	106.3	1.8
60°-70°	33.3	0.6
70°-80°	2.1	0.0
80°-90°	0.0	0.0
90°-100°	335.6	5.7
100°-110°	954.8	16.1
110°-120°	914.8	15.4
120°-130°	724.0	12.2
130°-140°	581.1	9.8
140°-150°	455.0	7.7
150°-160°	332.9	5.6
160°-170°	206.2	3.5
170°-180°	70.0	1.2
0°-30°	700.1	11.8
0°-40°	1006.4	17.0
0°-60°	1318.5	22.2
0°-90°	1354.0	22.8
90°-120°	2205.2	37.2
90°-150°	3965.3	66.9
90°-180°	4574.0	77.2
0°-180°	5928.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1135	1135	1135	1135	1135	
5°	1112	1101	1110	1114	1118	103
15°	918	914	947	978	999	256
25°	666	671	718	767	803	305
35°	427	438	485	542	592	265
45°	205	217	254	303	350	161
55°	74	86	111	142	175	69
65°	8	16	35	42	47	14
75°	1	1	0	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°	1135.0	1135.0	1135.0	1135.0	1135.0
2.5°	1137.6	1126.9	1129.7	1129.7	1126.7
5°	1112.5	1101.2	1109.7	1113.7	1118.0
7.5°	1065.5	1056.7	1073.1	1085.3	1094.3
10°	1029.0	1021.5	1042.8	1059.5	1071.9
12.5°	986.9	981.1	1006.7	1029.7	1045.5
15°	917.6	914.3	946.7	978.4	999.4
17.5°	843.3	843.2	880.1	919.6	944.8
20°	792.4	794.0	833.5	877.0	906.6
22.5°	741.4	745.2	787.4	832.8	866.6
25°	665.5	670.9	718.2	767.4	803.3
27.5°	592.6	600.4	650.3	701.3	745.1
30°	544.7	553.8	604.6	658.3	703.4
32.5°	497.7	508.6	558.0	614.8	660.8
35°	427.2	437.9	485.4	542.5	591.9
37.5°	354.4	364.9	411.3	467.5	520.9
40°	307.0	318.8	363.0	417.5	471.7
42.5°	263.9	275.7	317.3	370.8	422.0
45°	204.8	217.2	253.7	303.1	350.3
47.5°	155.8	169.3	201.3	246.0	289.1
50°	126.8	140.3	171.9	211.2	252.6
52.5°	103.6	116.6	145.1	182.2	220.1
55°	73.6	85.9	110.9	142.4	175.2
57.5°	50.8	61.5	83.9	110.2	135.8
60°	36.8	47.0	68.1	89.4	110.4
62.5°	24.5	33.8	54.5	70.8	84.9
65°	8.2	15.8	35.1	42.4	47.2
67.5°	4.2	5.0	18.5	19.5	21.1
70°	3.3	3.3	8.8	9.4	11.0
72.5°	2.4	2.4	3.5	4.5	4.8
75°	1.1	1.1	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°	0.0	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)