

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: P521110

Luminaire Tested: SQ4-BB-075U-100D-92765-1D-UNV-STD-W-4\_4500K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521110  
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-075U-100D-92765-1D-UNV-STD-W-4\_4500K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6017.2 lumens  
Efficiency: N/A  
Efficacy: 91.2 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

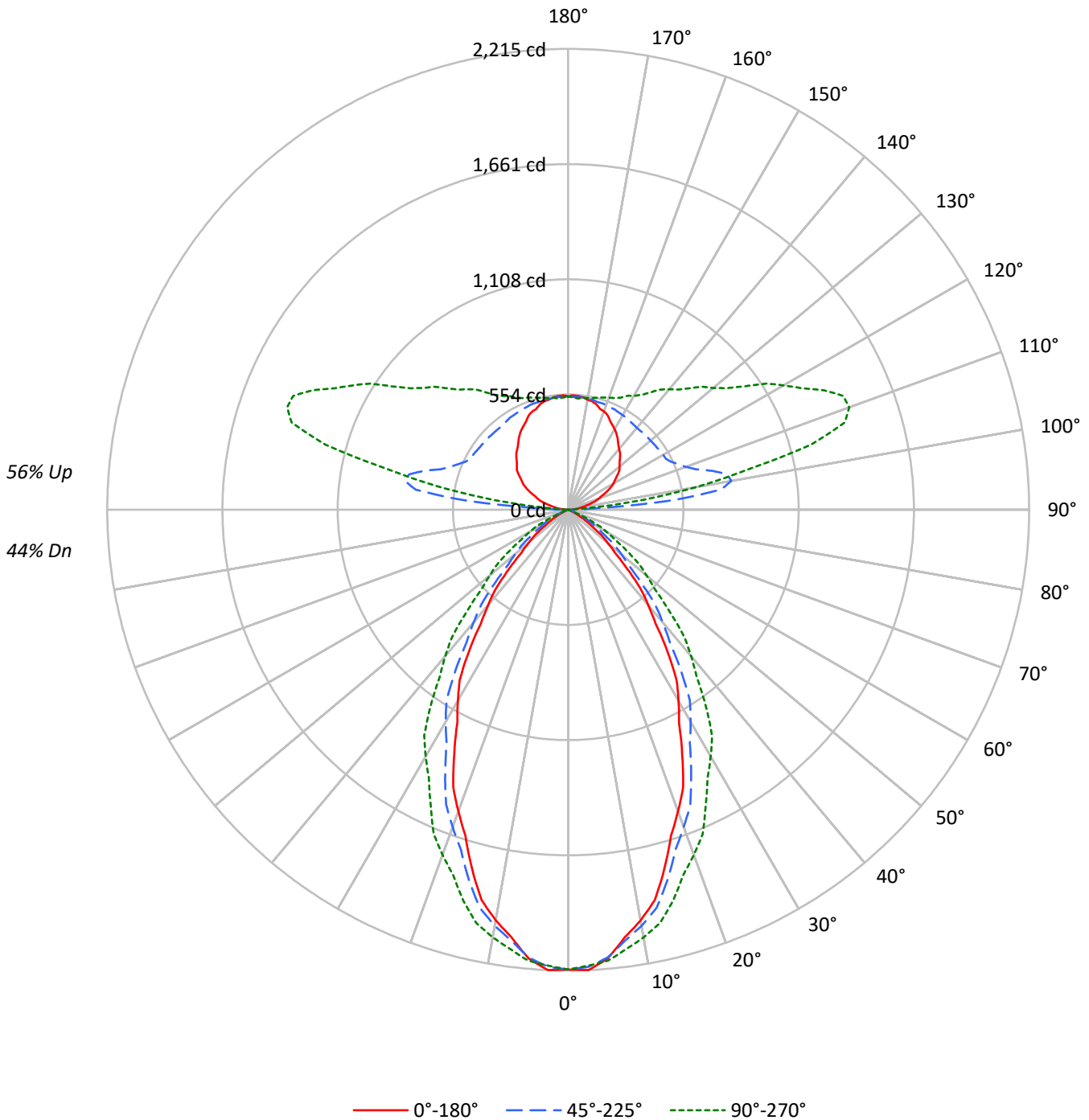
Input Watts (W): 66  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	106	106	106	106	97	97	97	97	80	80	80		65	65	65		50	50	50	44
1	98	94	91	88	90	87	84	81	72	70	69		59	58	57		47	46	46	40
2	91	84	79	75	83	78	73	69	65	62	59		54	52	50		43	42	41	36
3	84	75	69	64	77	70	64	60	59	55	52		49	46	44		40	38	37	33
4	77	68	61	56	71	63	57	52	54	49	46		45	42	39		37	35	33	30
5	72	61	54	49	66	57	51	46	49	44	41		41	38	35		34	32	30	27
6	67	56	49	43	61	52	46	41	45	40	36		38	34	32		32	29	27	24
7	62	51	44	39	57	48	41	37	41	36	33		35	31	29		29	27	25	22
8	58	47	40	35	53	44	37	33	38	33	30		32	29	26		27	25	23	21
9	54	43	36	32	50	40	34	30	35	30	27		30	27	24		26	23	21	19
10	51	40	33	29	47	37	31	27	33	28	25		28	25	22		24	21	20	18

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

	0°	45°	90°
0°	20391	20391	20391
5°	20062	20013	20161
10°	18772	19023	19553
15°	17066	17607	18588
20°	15149	15936	17332
25°	13192	14237	15925
30°	11300	12541	14592
35°	9370	10646	12982
40°	7199	8513	11062
45°	5203	6446	8901
50°	3545	4804	7059
55°	2305	3474	5487
60°	1321	2447	3965
65°	349	1493	2008
70°	173	461	577
75°	75	39	0
80°	58	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8901 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.7	3.4
10°-20°	515.8	8.6
20°-30°	645.7	10.7
30°-40°	596.4	9.9
40°-50°	400.8	6.7
50°-60°	207.0	3.4
60°-70°	64.8	1.1
70°-80°	4.1	0.1
80°-90°	0.1	0.0
90°-100°	248.0	4.1
100°-110°	705.7	11.7
110°-120°	676.1	11.2
120°-130°	535.1	8.9
130°-140°	429.5	7.1
140°-150°	336.2	5.6
150°-160°	246.0	4.1
160°-170°	152.4	2.5
170°-180°	51.7	0.9
0°-30°	1363.2	22.7
0°-40°	1959.7	32.6
0°-60°	2567.4	42.7
0°-90°	2636.4	43.8
90°-120°	1629.8	27.1
90°-150°	2930.6	48.7
90°-180°	3381.0	56.2
0°-180°	6017.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2210	2210	2210	2210	2210	
5°	2166	2144	2161	2169	2177	201
15°	1787	1780	1843	1905	1946	498
25°	1296	1306	1398	1494	1564	594
35°	832	853	945	1056	1153	515
45°	399	423	494	590	682	313
55°	143	167	216	277	341	134
65°	16	31	68	82	92	27
75°	2	2	1	0	0	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	1
95°	27	107	480	166	102	31
105°	110	166	719	1270	1208	116
115°	204	246	545	1155	1356	201
125°	288	319	520	864	1033	257
135°	352	381	514	730	825	271
145°	415	436	518	631	688	259
155°	474	485	531	571	594	219
165°	524	526	537	549	557	147
175°	548	545	543	540	536	52
180°	544	544	544	544	544	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2210.1	2210.1	2210.1	2210.1	2210.1
2.5°	2215.2	2194.3	2199.8	2199.7	2193.8
5°	2166.2	2144.3	2160.9	2168.6	2176.9
7.5°	2074.7	2057.6	2089.5	2113.4	2130.7
10°	2003.7	1989.1	2030.5	2063.1	2087.1
12.5°	1921.6	1910.3	1960.3	2005.1	2035.8
15°	1786.7	1780.4	1843.3	1905.2	1946.0
17.5°	1642.1	1641.9	1713.7	1790.6	1839.7
20°	1542.9	1546.0	1623.1	1707.8	1765.3
22.5°	1443.7	1451.0	1533.3	1621.6	1687.4
25°	1295.9	1306.4	1398.5	1494.2	1564.3
27.5°	1153.9	1169.2	1266.2	1365.6	1450.9
30°	1060.7	1078.4	1177.2	1281.9	1369.7
32.5°	969.1	990.3	1086.5	1197.2	1286.7
35°	831.9	852.8	945.2	1056.4	1152.6
37.5°	690.1	710.6	800.8	910.3	1014.3
40°	597.7	620.7	706.8	812.9	918.5
42.5°	513.9	536.9	617.8	722.1	821.8
45°	398.8	422.9	494.0	590.2	682.2
47.5°	303.4	329.6	392.0	479.0	562.8
50°	247.0	273.1	334.7	411.3	491.8
52.5°	201.7	227.0	282.5	354.7	428.5
55°	143.3	167.3	216.0	277.3	341.1
57.5°	99.0	119.7	163.4	214.6	264.5
60°	71.6	91.5	132.6	174.1	214.9
62.5°	47.7	65.9	106.1	137.9	165.3
65°	16.0	30.7	68.4	82.5	92.0
67.5°	8.1	9.8	35.9	37.9	41.1
70°	6.4	6.4	17.1	18.2	21.4
72.5°	4.7	4.7	6.8	8.8	9.4
75°	2.1	2.1	1.1	0.0	0.0
77.5°	1.1	1.1	0.9	0.0	0.0
80°	1.1	1.1	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°	8.3	43.9	101.8	29.6	22.3
95°	26.9	106.8	480.1	166.2	102.4
97.5°	49.5	125.1	739.4	529.1	362.6
100°	65.2	136.0	795.7	806.0	620.8
102.5°	82.6	147.7	783.3	1031.7	870.0
105°	109.7	166.3	719.1	1270.2	1207.5
107.5°	137.2	188.0	644.2	1337.5	1393.4
110°	156.2	203.8	601.2	1311.8	1437.2

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	174.5	219.6	572.2	1250.9	1429.8
115°	203.8	246.3	545.3	1155.2	1356.5
117.5°	229.7	269.6	529.4	1050.5	1263.8
120°	250.4	283.8	527.7	990.7	1195.1
122.5°	267.0	300.3	523.6	938.3	1128.1
125°	287.7	319.0	520.5	863.7	1032.7
127.5°	310.2	339.5	518.8	819.1	958.4
130°	321.8	351.1	516.3	788.1	909.5
132.5°	334.2	362.7	516.3	763.9	875.6
135°	351.8	381.1	514.3	729.6	824.7
137.5°	368.4	396.9	514.0	700.5	782.7
140°	380.8	410.1	513.2	676.4	755.3
142.5°	394.8	419.3	515.7	657.2	728.0
145°	414.9	436.2	518.4	631.4	688.1
147.5°	432.1	452.7	522.9	605.4	654.4
150°	447.0	461.2	524.6	596.8	631.2
152.5°	458.6	473.6	526.3	585.1	617.1
155°	473.9	485.0	530.8	570.7	593.9
157.5°	492.9	499.6	531.8	564.1	580.7
160°	502.9	507.9	536.0	559.1	573.2
162.5°	508.7	514.5	536.8	554.9	565.8
165°	523.6	525.6	537.0	548.6	556.7
167.5°	533.7	531.9	541.8	547.0	550.3
170°	537.0	536.0	540.1	541.3	545.3
172.5°	544.5	541.0	542.6	539.6	542.8
175°	548.4	545.4	543.2	540.0	536.0
177.5°	550.1	545.2	542.6	539.3	540.1
180°	544.3	544.3	544.3	544.3	544.3

(END OF REPORT)