

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: P521787

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

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521787
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2009-966-13)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-WB-050U-100D-92765-1D-UNV-STD-W-4_5000K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 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: 5873.6 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

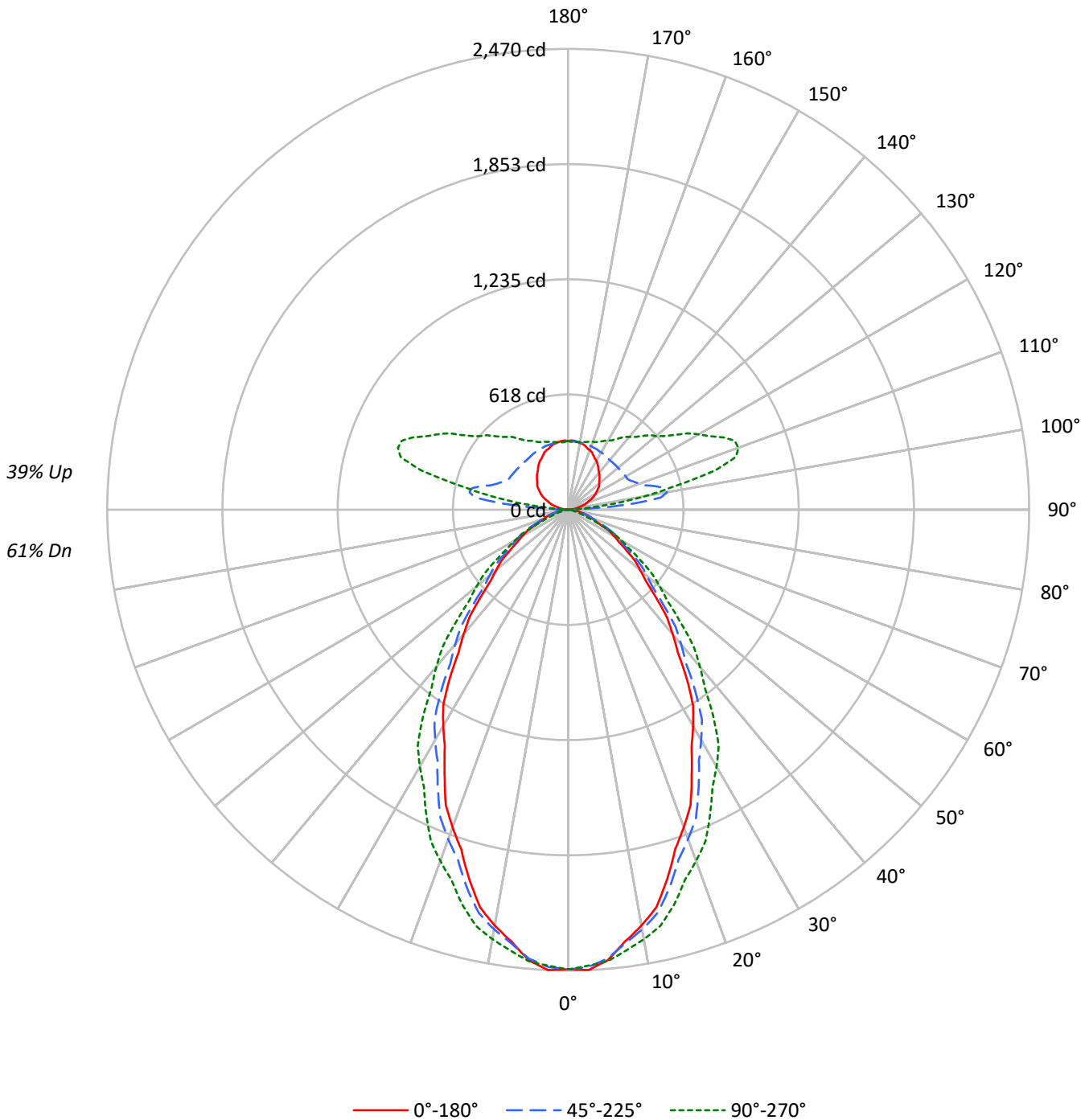
Input Watts (W): 58.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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	110	110	110	110	103	103	103	103	90	90	90	77	77	77	66	66	66	61						61													
1	102	98	94	91	95	92	89	86	81	78	76	70	69	67	61	60	59	54						54													
2	94	87	82	77	88	82	77	73	72	69	66	63	61	59	55	53	52	48						48													
3	87	78	71	66	81	74	68	63	65	61	57	58	54	51	50	48	46	42						42													
4	80	70	63	57	75	66	60	55	59	54	50	52	48	45	46	43	41	38						38													
5	74	63	56	50	69	60	53	48	54	48	44	48	44	40	42	39	37	34						34													
6	69	58	50	45	65	55	48	43	49	44	40	44	40	36	39	36	33	31						31													
7	64	53	45	40	60	50	43	38	45	40	36	40	36	33	36	33	30	28						28													
8	60	48	41	36	56	46	39	35	42	36	32	37	33	30	34	30	27	25						25													
9	56	45	37	33	53	42	36	32	39	33	29	35	30	27	31	28	25	23						23													
10	53	41	34	30	50	39	33	29	36	31	27	32	28	25	29	26	23	22						22													

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22731	22731	22731
5°	22447	22367	22497
10°	21208	21401	21896
15°	19578	20032	20931
20°	17779	18448	19668
25°	15946	16815	18324
30°	14258	15191	16929
35°	12468	13369	15281
40°	10494	11327	13228
45°	8661	9409	11045
50°	7231	7883	9202
55°	6138	6764	7599
60°	5246	5864	6063
65°	4176	4932	3919
70°	3704	3849	2390
75°	3429	3123	1465
80°	3161	2874	1265
85°	2858	2636	1027

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11045 cd/sqm

TEST NUMBER: P521787

CATALOG NUMBER: SQ4-WB-050U-100D-92765-1D-UNV-STD-W-4_5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.0	3.8
10°-20°	587.8	10.0
20°-30°	761.4	13.0
30°-40°	745.6	12.7
40°-50°	570.7	9.7
50°-60°	380.3	6.5
60°-70°	207.5	3.5
70°-80°	86.5	1.5
80°-90°	24.5	0.4
90°-100°	167.5	2.9
100°-110°	476.6	8.1
110°-120°	456.7	7.8
120°-130°	361.4	6.2
130°-140°	290.1	4.9
140°-150°	227.1	3.9
150°-160°	166.2	2.8
160°-170°	102.9	1.8
170°-180°	34.9	0.6
0°-30°	1575.1	26.8
0°-40°	2320.7	39.5
0°-60°	3271.6	55.7
0°-90°	3590.1	61.1
90°-120°	1100.8	18.7
90°-150°	1979.5	33.7
90°-180°	2283.0	38.9
0°-180°	5873.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2464	2464	2464	2464	2464	
5°	2424	2399	2415	2421	2429	225
15°	2050	2042	2097	2154	2191	572
25°	1566	1571	1652	1724	1800	720
35°	1107	1112	1187	1267	1357	688
45°	664	676	721	776	846	518
55°	382	398	420	436	472	346
65°	191	207	226	197	180	199
75°	96	96	88	60	41	103
85°	27	27	25	16	10	29
90°	0	0	0	0	0	2
95°	18	72	324	112	69	21
105°	74	112	486	858	816	78
115°	138	166	368	780	916	136
125°	194	216	352	583	698	174
135°	238	257	347	493	557	183
145°	280	295	350	426	465	175
155°	320	328	358	385	401	148
165°	354	355	363	370	376	99
175°	370	368	367	365	362	35
180°	368	368	368	368	368	

TEST NUMBER: P521787

CATALOG NUMBER: SQ4-WB-050U-100D-92765-1D-UNV-STD-W-4_5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2463.7	2463.7	2463.7	2463.7	2463.7
2.5°	2469.8	2447.8	2453.3	2453.2	2446.4
5°	2423.7	2399.4	2415.1	2420.7	2429.1
7.5°	2333.8	2315.4	2343.9	2365.1	2382.2
10°	2263.7	2247.9	2284.3	2315.0	2337.2
12.5°	2182.4	2169.1	2214.2	2255.5	2284.5
15°	2049.7	2042.3	2097.2	2154.3	2191.3
17.5°	1907.6	1904.0	1967.1	2033.7	2081.0
20°	1810.8	1809.7	1878.9	1948.2	2003.2
22.5°	1713.0	1715.4	1788.1	1860.2	1922.8
25°	1566.4	1570.7	1651.8	1723.8	1800.0
27.5°	1430.9	1432.8	1516.7	1592.7	1673.9
30°	1338.3	1343.6	1425.9	1504.6	1589.1
32.5°	1245.8	1251.9	1332.5	1413.8	1500.1
35°	1107.0	1112.3	1187.0	1266.9	1356.7
37.5°	963.9	971.1	1037.4	1112.9	1201.3
40°	871.3	881.9	940.5	1011.7	1098.3
42.5°	782.2	795.4	849.7	917.2	995.4
45°	663.8	676.4	721.1	775.6	846.5
47.5°	561.7	576.3	610.6	657.6	718.0
50°	503.8	517.5	549.2	584.0	641.1
52.5°	452.7	466.5	494.7	521.5	570.1
55°	381.6	397.5	420.5	436.5	472.4
57.5°	323.2	338.5	356.7	363.9	385.7
60°	284.3	301.2	317.8	317.0	328.6
62.5°	248.9	263.2	279.8	268.3	269.0
65°	191.3	207.2	225.9	197.4	179.5
67.5°	154.6	158.0	177.3	137.7	116.3
70°	137.3	137.3	142.7	106.6	88.6
72.5°	120.9	120.9	115.9	86.7	67.9
75°	96.2	96.2	87.6	60.1	41.1
77.5°	74.2	73.3	67.0	44.8	29.8
80°	59.5	59.5	54.1	35.4	23.8
82.5°	46.5	46.5	41.9	27.7	17.7
85°	27.0	27.0	24.9	16.1	9.7
87.5°	9.5	9.5	8.6	5.2	4.3
90°	0.0	0.0	0.0	0.0	0.0
92.5°	5.6	29.6	68.8	20.0	15.1
95°	18.2	72.2	324.3	112.2	69.2
97.5°	33.4	84.5	499.4	357.4	244.9
100°	44.0	91.9	537.4	544.4	419.3
102.5°	55.8	99.8	529.1	696.8	587.6
105°	74.1	112.3	485.7	858.0	815.6
107.5°	92.7	127.0	435.1	903.4	941.1
110°	105.5	137.6	406.1	886.0	970.8

TEST NUMBER: P521787

CATALOG NUMBER: SQ4-WB-050U-100D-92765-1D-UNV-STD-W-4_5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	117.8	148.3	386.5	844.9	965.7
115°	137.7	166.4	368.3	780.3	916.2
117.5°	155.2	182.1	357.6	709.6	853.6
120°	169.1	191.7	356.4	669.2	807.2
122.5°	180.3	202.9	353.6	633.7	761.9
125°	194.3	215.5	351.5	583.4	697.5
127.5°	209.5	229.3	350.4	553.3	647.3
130°	217.4	237.2	348.7	532.3	614.3
132.5°	225.7	245.0	348.7	516.0	591.4
135°	237.6	257.4	347.3	492.8	557.0
137.5°	248.8	268.1	347.2	473.1	528.6
140°	257.2	277.0	346.6	456.9	510.2
142.5°	266.7	283.2	348.3	443.9	491.7
145°	280.3	294.6	350.1	426.5	464.8
147.5°	291.9	305.8	353.2	408.9	442.0
150°	301.9	311.5	354.3	403.1	426.3
152.5°	309.7	319.9	355.5	395.2	416.8
155°	320.1	327.6	358.5	385.4	401.2
157.5°	332.9	337.5	359.2	381.0	392.2
160°	339.7	343.1	362.0	377.6	387.2
162.5°	343.6	347.5	362.6	374.8	382.2
165°	353.6	355.0	362.7	370.5	376.0
167.5°	360.5	359.3	365.9	369.5	371.7
170°	362.7	362.0	364.8	365.6	368.3
172.5°	367.8	365.4	366.5	364.4	366.6
175°	370.4	368.4	366.9	364.8	362.0
177.5°	371.5	368.2	366.5	364.3	364.8
180°	367.6	367.6	367.6	367.6	367.6

(END OF REPORT)