

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: P854004

Luminaire Tested: SQ2-PH1-050U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854004
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-050U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

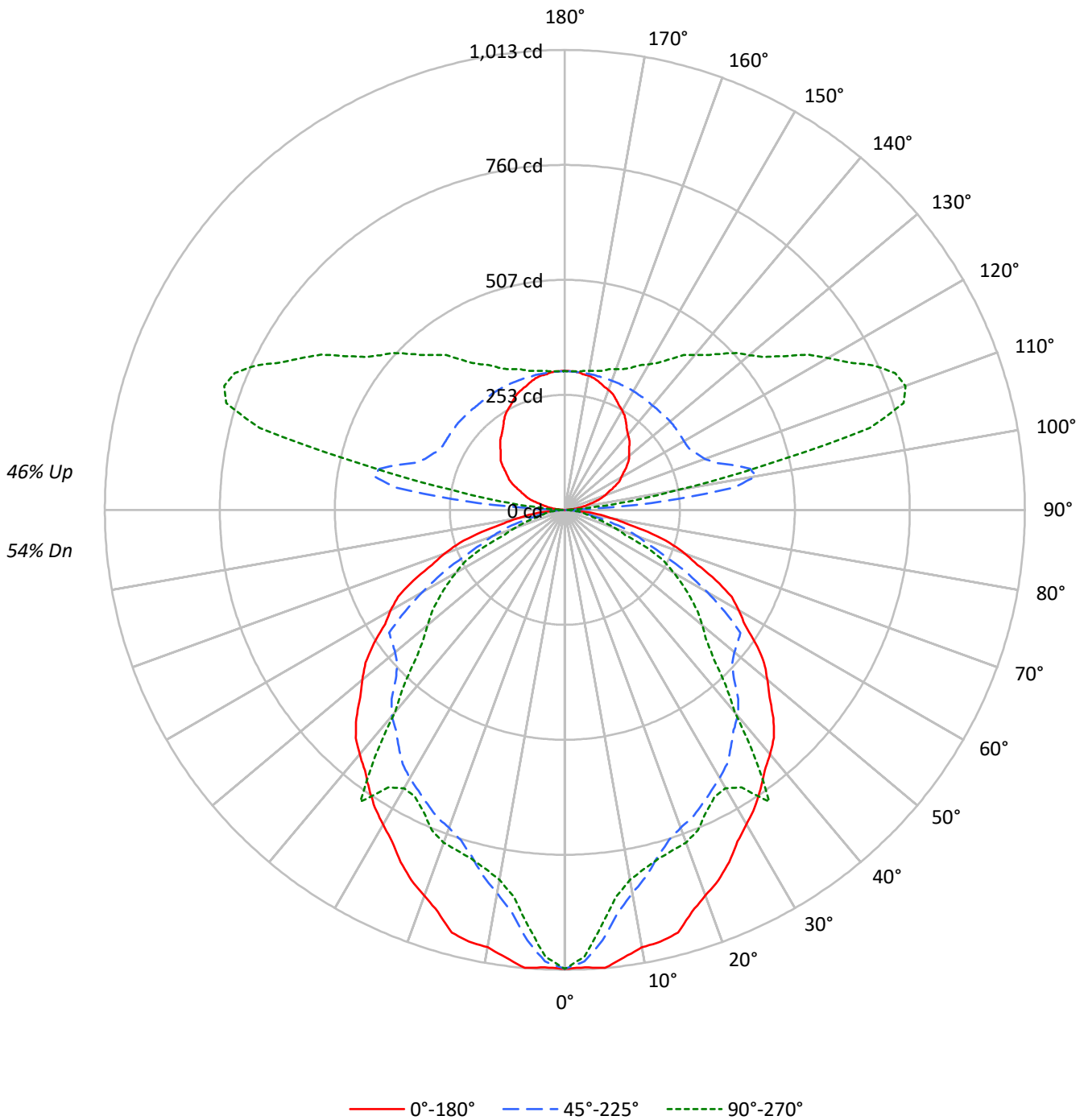
Lumens per Lamp: N/A
Luminaire Lumens: 4135.4 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.6
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

TEST NUMBER: P854004

CATALOG NUMBER: SQ2-PH1-050U-050D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854004

CATALOG NUMBER: SQ2-PH1-050U-050D-930-UNV-STD-W-4

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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	95	91	87	92	88	85	82	75	73	71	64	62	61	53	52	51	46
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	39
3	82	73	66	60	76	68	62	56	59	54	50	50	46	43	42	39	37	33
4	75	65	57	51	70	60	53	48	52	47	42	45	40	37	37	34	32	28
5	69	58	50	44	64	54	47	41	47	41	37	40	36	32	34	30	28	25
6	64	52	44	38	59	48	41	36	42	36	32	36	32	28	31	27	25	22
7	59	47	39	33	55	44	37	32	38	32	28	33	28	25	28	24	22	19
8	55	42	35	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	36	30	25	32	26	23	28	23	20	24	20	18	16
10	48	36	28	24	44	34	27	22	29	24	20	26	21	18	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16322	16322	16322
5°	16415	15433	14917
10°	16038	14050	13562
15°	16109	13215	13295
20°	15534	12807	13402
25°	15250	12748	13090
30°	14919	12713	13198
35°	14806	12569	15469
40°	14819	12488	12265
45°	14824	12013	10563
50°	14616	12248	9904
55°	14429	13292	9503
60°	14286	11648	8913
65°	14036	9444	7752
70°	13256	8035	5537
75°	11822	6057	4198
80°	9661	3933	3933
85°	6058	3557	2668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14824 cd/sqm



TEST NUMBER: P854004

CATALOG NUMBER: SQ2-PH1-050U-050D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.9	2.2
10°-20°	234.0	5.7
20°-30°	343.1	8.3
30°-40°	415.5	10.0
40°-50°	408.5	9.9
50°-60°	355.6	8.6
60°-70°	247.2	6.0
70°-80°	117.2	2.8
80°-90°	26.2	0.6
90°-100°	121.8	2.9
100°-110°	386.3	9.3
110°-120°	378.8	9.2
120°-130°	308.3	7.5
130°-140°	251.4	6.1
140°-150°	196.0	4.7
150°-160°	141.2	3.4
160°-170°	86.3	2.1
170°-180°	29.1	0.7
0°-30°	666.0	16.1
0°-40°	1081.4	26.2
0°-60°	1845.6	44.6
0°-90°	2236.3	54.1
90°-120°	887.0	21.4
90°-150°	1642.6	39.7
90°-180°	1899.0	45.9
0°-180°	4135.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1011	1011	1011	1011	1011	
5°	1013	1012	952	922	920	95
15°	964	858	791	785	795	269
25°	856	728	716	738	735	394
35°	751	607	638	693	785	471
45°	649	481	526	544	463	499
55°	513	374	472	340	338	458
65°	367	257	247	203	203	361
75°	190	131	97	69	67	201
85°	33	21	19	15	14	44
90°	0	1	3	3	3	2
95°	16	49	221	82	53	19
105°	67	95	381	725	695	71
115°	120	143	308	639	752	119
125°	166	186	303	501	590	148
135°	201	221	301	431	486	155
145°	235	252	301	372	405	147
155°	267	277	302	332	345	123
165°	291	294	303	314	317	82
175°	305	304	305	307	306	29
180°	306	306	306	306	306	



TEST NUMBER: P854004

CATALOG NUMBER: SQ2-PH1-050U-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1010.9	1010.9	1010.9	1010.9	1010.9
2.5°	1008.5	1019.1	995.5	986.2	984.7
5°	1012.8	1011.8	952.2	922.3	920.4
7.5°	994.3	965.2	893.9	861.0	859.5
10°	978.2	934.0	857.0	827.2	827.2
12.5°	974.3	904.5	827.0	804.9	809.5
15°	963.7	858.4	790.6	785.1	795.4
17.5°	928.7	815.3	762.3	774.9	786.9
20°	904.1	792.2	745.4	768.7	780.0
22.5°	883.3	769.9	733.1	758.6	764.6
25°	856.0	728.1	715.6	737.6	734.8
27.5°	823.3	689.8	698.1	711.6	713.3
30°	800.2	666.7	681.9	695.7	707.9
32.5°	777.9	639.9	664.2	696.8	724.8
35°	751.2	607.3	637.7	692.7	784.8
37.5°	723.1	568.9	610.9	657.2	686.5
40°	703.1	541.3	592.5	649.6	581.9
42.5°	681.5	519.8	564.8	638.5	524.2
45°	649.2	480.9	526.1	544.4	462.6
47.5°	611.1	450.7	499.9	454.0	422.0
50°	581.9	430.5	487.6	415.0	394.3
52.5°	553.4	409.5	479.2	382.9	368.9
55°	512.6	374.4	472.2	340.4	337.6
57.5°	469.4	338.6	417.6	303.5	308.4
60°	442.4	315.5	360.7	281.7	276.0
62.5°	414.0	293.0	307.6	254.0	248.3
65°	367.4	257.4	247.2	202.9	202.9
67.5°	316.2	220.3	200.2	166.1	143.5
70°	280.8	196.2	170.2	132.4	117.3
72.5°	243.1	170.5	139.5	108.5	91.2
75°	189.5	131.2	97.1	69.2	67.3
77.5°	137.0	94.5	65.4	51.4	51.6
80°	103.9	71.9	42.3	41.4	42.3
82.5°	73.1	49.4	31.5	32.9	33.1
85°	32.7	21.4	19.2	15.4	14.4
87.5°	6.9	6.4	4.4	4.4	4.4
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.4	21.4	68.3	22.7	16.0
95°	16.3	49.3	221.2	82.0	52.9
97.5°	30.4	63.9	374.7	234.1	143.7
100°	40.4	72.4	427.0	389.3	252.9
102.5°	51.2	81.6	417.8	571.7	437.6
105°	67.3	94.6	380.8	725.4	695.3
107.5°	83.5	108.7	345.6	741.4	782.1
110°	94.2	118.7	327.9	723.0	798.2



TEST NUMBER: P854004

CATALOG NUMBER: SQ2-PH1-050U-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	105.0	128.0	317.9	691.1	786.7
115°	120.2	142.8	307.7	639.2	752.1
117.5°	135.0	156.5	303.7	589.2	703.0
120°	144.3	164.9	302.9	558.4	668.4
122.5°	153.5	173.4	302.9	533.6	636.1
125°	166.4	186.1	302.9	501.2	590.5
127.5°	177.7	196.7	302.9	476.0	552.2
130°	184.6	204.4	302.9	461.3	529.9
132.5°	191.6	211.3	302.2	449.6	511.4
135°	201.0	220.7	301.0	431.1	485.7
137.5°	210.2	230.9	300.8	413.5	462.2
140°	216.4	237.1	300.1	401.1	445.3
142.5°	224.1	244.0	300.8	388.7	429.9
145°	234.7	252.5	301.0	372.0	404.9
147.5°	245.2	260.5	301.2	357.2	384.1
150°	252.9	265.2	302.0	348.6	370.3
152.5°	259.1	269.8	302.0	341.6	359.5
155°	267.4	276.8	302.0	332.1	345.3
157.5°	276.2	282.6	302.9	326.2	335.3
160°	280.8	286.5	302.9	322.3	329.9
162.5°	285.4	289.6	302.9	319.2	324.5
165°	291.4	294.2	302.9	314.5	317.4
167.5°	297.0	297.7	303.9	311.3	313.7
170°	300.1	300.1	303.9	309.7	310.6
172.5°	301.6	302.3	303.9	308.1	308.3
175°	304.9	303.9	304.9	306.8	305.8
177.5°	305.8	305.1	305.1	306.6	305.1
180°	305.8	305.8	305.8	305.8	305.8



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.40	18.29	18.32	19.23	20.44	16.07	16.96	17.00	17.90	19.12
	3H	19.43	20.22	20.36	21.17	22.41	17.11	17.91	18.04	18.86	20.09
	4H	20.16	20.91	21.11	21.87	23.11	17.32	18.08	18.27	19.03	20.28
	6H	20.65	21.34	21.61	22.30	23.56	17.47	18.16	18.43	19.12	20.38
	8H	20.77	21.43	21.74	22.41	23.67	17.50	18.16	18.47	19.14	20.40
	12H	20.82	21.45	21.79	22.42	23.70	17.50	18.13	18.47	19.10	20.38
4H	2H	17.78	18.53	18.73	19.49	20.73	16.72	17.47	17.67	18.43	19.67
	3H	19.89	20.51	20.85	21.50	22.76	17.90	18.53	18.87	19.51	20.77
	4H	20.70	21.28	21.68	22.25	23.54	18.18	18.75	19.15	19.73	21.01
	6H	21.29	21.78	22.28	22.78	24.07	18.39	18.88	19.37	19.88	21.16
	8H	21.46	21.92	22.45	22.92	24.21	18.44	18.90	19.43	19.90	21.20
	12H	21.53	21.94	22.54	22.96	24.26	18.45	18.87	19.46	19.88	21.18
8H	4H	20.72	21.18	21.71	22.18	23.48	18.40	18.85	19.38	19.85	21.15
	6H	21.38	21.76	22.39	22.79	24.09	18.67	19.05	19.68	20.08	21.38
	8H	21.60	21.94	22.63	22.96	24.27	18.77	19.11	19.79	20.13	21.44
	12H	21.72	22.01	22.74	23.03	24.39	18.82	19.11	19.84	20.13	21.49
12H	4H	20.68	21.09	21.68	22.10	23.41	18.39	18.81	19.40	19.82	21.12
	6H	21.35	21.69	22.37	22.71	24.02	18.70	19.03	19.72	20.06	21.37
	8H	21.59	21.88	22.61	22.90	24.26	18.82	19.11	19.84	20.13	21.49