

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: P854173

Luminaire Tested: SQ2-PR1-050U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854173
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-050U-050D-935-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

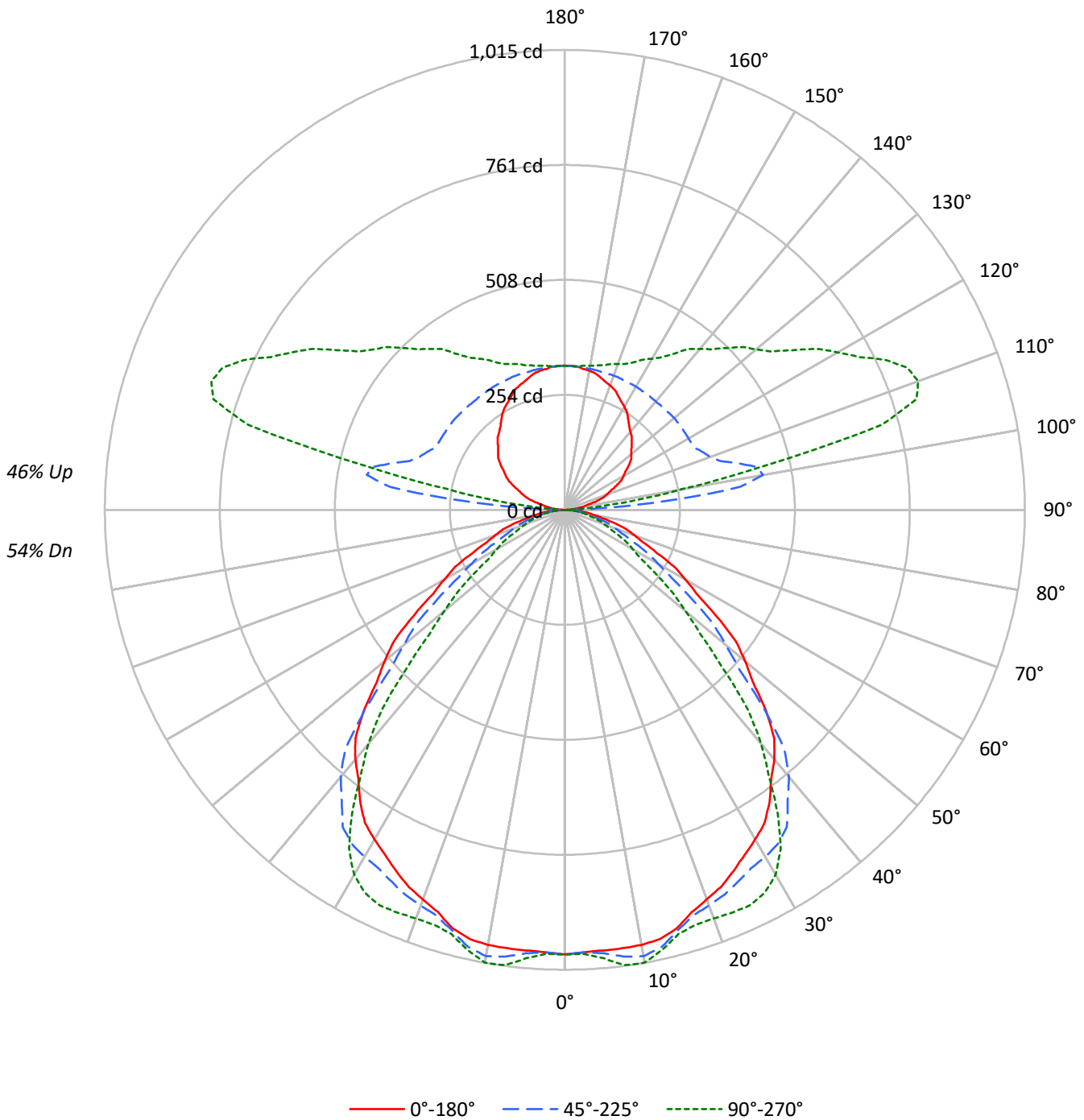
Lumens per Lamp: N/A
Luminaire Lumens: 4334.9 lumens
Efficiency: N/A
Efficacy: 133.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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: P854173

CATALOG NUMBER: SQ2-PR1-050U-050D-935-UNV-STD-W-4

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	50	30	10	0	
RCR																						
0	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54	54	54	54	
1	99	95	92	88	92	89	86	83	76	74	72	65	63	62	54	53	52	47	47	47	47	
2	91	84	78	73	84	78	73	69	68	64	61	58	55	53	49	47	45	41	41	41	41	
3	84	74	67	62	77	70	63	58	60	56	52	52	48	45	44	41	39	35	35	35	35	
4	77	66	59	53	71	62	55	50	54	49	45	46	42	39	39	36	34	31	31	31	31	
5	71	59	51	46	65	56	49	43	48	43	39	42	38	34	36	33	30	27	27	27	27	
6	65	53	46	40	60	50	43	38	44	38	34	38	34	30	33	29	27	24	24	24	24	
7	60	48	41	35	56	45	38	34	40	34	30	35	30	27	30	26	24	21	21	21	21	
8	56	44	36	31	52	41	35	30	36	31	27	32	27	24	27	24	21	19	19	19	19	
9	52	40	33	28	49	38	31	27	33	28	24	29	25	22	25	22	19	17	17	17	17	
10	49	37	30	25	46	35	28	24	31	26	22	27	23	20	24	20	18	16	16	16	16	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15839	15839	15839
5°	15819	15916	16110
10°	15985	16395	16641
15°	15980	16064	16197
20°	15722	15962	16495
25°	15677	16123	17174
30°	15661	16481	17339
35°	15512	16833	16143
40°	15154	16208	14206
45°	14340	14225	11234
50°	13036	11630	8716
55°	11457	9571	6784
60°	9914	7653	5586
65°	8558	6342	4890
70°	7695	5618	4343
75°	7049	4866	3992
80°	6137	3905	3905
85°	4446	3520	1853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 15502 cd/sqm



TEST NUMBER: P854173

CATALOG NUMBER: SQ2-PR1-050U-050D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.7	2.2
10°-20°	274.2	6.3
20°-30°	423.9	9.8
30°-40°	509.9	11.8
40°-50°	457.8	10.6
50°-60°	306.7	7.1
60°-70°	178.4	4.1
70°-80°	91.6	2.1
80°-90°	23.0	0.5
90°-100°	126.6	2.9
100°-110°	401.7	9.3
110°-120°	393.9	9.1
120°-130°	320.5	7.4
130°-140°	261.3	6.0
140°-150°	203.8	4.7
150°-160°	146.8	3.4
160°-170°	89.7	2.1
170°-180°	30.3	0.7
0°-30°	792.9	18.3
0°-40°	1302.8	30.1
0°-60°	2067.3	47.7
0°-90°	2360.3	54.4
90°-120°	922.2	21.3
90°-150°	1707.8	39.4
90°-180°	1975.0	45.6
0°-180°	4334.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	976	993	982	984	994	93
15°	956	995	961	964	969	268
25°	880	915	905	939	964	406
35°	787	794	854	838	819	491
45°	628	679	623	525	492	480
55°	407	423	340	262	241	366
65°	224	229	166	135	128	227
75°	113	110	78	66	64	120
85°	24	19	19	13	10	30
90°	0	1	3	3	3	2
95°	17	51	230	85	55	20
105°	70	98	396	754	723	74
115°	125	148	320	665	782	123
125°	173	194	315	521	614	154
135°	209	230	313	448	505	161
145°	244	263	313	387	421	153
155°	278	288	314	345	359	128
165°	303	306	315	327	330	85
175°	317	316	317	319	318	30
180°	318	318	318	318	318	



TEST NUMBER: P854173

CATALOG NUMBER: SQ2-PR1-050U-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	981.0	981.0	981.0	981.0	981.0
2.5°	977.0	988.7	977.8	978.7	981.0
5°	976.0	992.6	982.0	984.2	994.0
7.5°	975.8	999.5	994.4	1000.5	1013.4
10°	975.0	1003.4	1000.0	1001.3	1015.0
12.5°	970.2	1003.3	988.0	986.8	994.2
15°	956.0	995.1	961.0	964.1	969.0
17.5°	931.0	971.9	939.4	950.4	960.0
20°	915.0	955.1	929.0	943.4	960.0
22.5°	900.6	940.7	919.4	939.5	962.4
25°	880.0	915.2	905.0	938.6	964.0
27.5°	858.4	879.1	891.2	936.2	954.0
30°	840.0	853.7	884.0	923.2	930.0
32.5°	820.0	828.2	874.4	894.8	886.0
35°	787.0	793.9	854.0	837.6	819.0
37.5°	747.8	761.9	808.2	760.9	739.6
40°	719.0	742.5	769.0	698.5	674.0
42.5°	683.8	721.4	717.0	627.1	597.2
45°	628.0	678.9	623.0	525.2	492.0
47.5°	562.2	614.4	523.0	435.7	404.6
50°	519.0	561.0	463.0	381.2	347.0
52.5°	475.0	505.3	411.8	330.1	299.0
55°	407.0	422.6	340.0	262.5	241.0
57.5°	344.6	354.6	277.8	212.0	196.2
60°	307.0	313.8	237.0	185.7	173.0
62.5°	272.6	277.9	204.2	163.4	153.8
65°	224.0	228.9	166.0	134.8	128.0
67.5°	185.4	187.9	136.6	112.1	105.6
70°	163.0	164.0	119.0	96.9	92.0
72.5°	143.0	141.6	102.2	84.1	80.8
75°	113.0	110.1	78.0	66.0	64.0
77.5°	84.4	81.3	54.8	50.8	50.8
80°	66.0	62.1	42.0	42.0	42.0
82.5°	49.2	43.7	32.4	32.4	31.6
85°	24.0	19.1	19.0	12.9	10.0
87.5°	6.4	6.6	3.0	3.0	3.0
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.2	71.0	23.6	16.6
95°	17.0	51.2	230.0	85.3	55.0
97.5°	31.6	66.4	389.6	243.4	149.4
100°	42.0	75.2	444.0	404.7	263.0
102.5°	53.2	84.9	434.4	594.4	455.0
105°	70.0	98.3	396.0	754.2	722.9
107.5°	86.8	113.0	359.4	770.9	813.1
110°	98.0	123.4	341.0	751.7	829.9



TEST NUMBER: P854173

CATALOG NUMBER: SQ2-PR1-050U-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	109.2	133.0	330.6	718.6	817.9
115°	125.0	148.5	320.0	664.6	781.9
117.5°	140.4	162.7	315.8	612.6	730.9
120°	150.0	171.5	315.0	580.5	694.9
122.5°	159.6	180.3	315.0	554.8	661.3
125°	173.0	193.5	315.0	521.1	613.9
127.5°	184.8	204.5	315.0	495.0	574.1
130°	192.0	212.5	315.0	479.6	550.9
132.5°	199.2	219.7	314.2	467.4	531.8
135°	209.0	229.5	313.0	448.2	505.0
137.5°	218.6	240.1	312.8	429.9	480.6
140°	225.0	246.5	312.0	417.0	463.0
142.5°	233.0	253.7	312.8	404.1	447.0
145°	244.0	262.6	313.0	386.7	421.0
147.5°	255.0	270.8	313.2	371.4	399.4
150°	263.0	275.7	314.0	362.5	385.0
152.5°	269.4	280.5	314.0	355.2	373.8
155°	278.0	287.8	314.0	345.3	359.0
157.5°	287.2	293.8	315.0	339.2	348.6
160°	292.0	297.8	315.0	335.1	343.0
162.5°	296.8	301.1	315.0	331.9	337.4
165°	303.0	305.9	315.0	327.0	330.0
167.5°	308.8	309.6	316.0	323.6	326.2
170°	312.0	312.0	316.0	322.0	323.0
172.5°	313.6	314.4	316.0	320.4	320.6
175°	317.0	316.0	317.0	318.9	318.0
177.5°	318.0	317.2	317.2	318.7	317.2
180°	318.0	318.0	318.0	318.0	318.0



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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	16.78	17.64	17.71	18.58	19.79	13.51	14.37	14.44	15.31	16.52
	3H	18.02	18.78	18.96	19.73	20.97	14.58	15.34	15.52	16.29	17.52
	4H	18.47	19.19	19.42	20.15	21.39	14.98	15.70	15.93	16.65	17.89
	6H	18.79	19.45	19.75	20.41	21.67	15.31	15.97	16.27	16.93	18.19
	8H	18.87	19.50	19.84	20.48	21.73	15.39	16.02	16.36	17.00	18.25
	12H	18.90	19.50	19.87	20.47	21.75	15.40	16.00	16.38	16.97	18.25
4H	2H	16.86	17.59	17.82	18.54	19.78	14.08	14.80	15.04	15.75	17.00
	3H	18.34	18.93	19.30	19.92	21.17	15.34	15.94	16.31	16.93	18.18
	4H	18.93	19.48	19.91	20.45	21.73	15.85	16.40	16.83	17.37	18.66
	6H	19.38	19.85	20.37	20.85	22.13	16.29	16.76	17.28	17.76	19.04
	8H	19.51	19.95	20.51	20.95	22.24	16.41	16.85	17.40	17.84	19.13
	12H	19.57	19.96	20.58	20.97	22.27	16.43	16.82	17.44	17.83	19.13
8H	4H	18.96	19.39	19.95	20.39	21.68	16.16	16.59	17.15	17.59	18.88
	6H	19.50	19.87	20.52	20.90	22.19	16.69	17.05	17.71	18.09	19.38
	8H	19.70	20.02	20.73	21.04	22.35	16.88	17.20	17.90	18.22	19.53
	12H	19.81	20.09	20.83	21.10	22.46	16.94	17.22	17.97	18.24	19.59
12H	4H	18.91	19.31	19.92	20.32	21.62	16.17	16.57	17.18	17.58	18.88
	6H	19.49	19.81	20.51	20.83	22.14	16.75	17.07	17.78	18.09	19.40
	8H	19.70	19.98	20.73	21.00	22.36	16.96	17.24	17.99	18.26	19.61