

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: P854160

Luminaire Tested: SQ2-PR1-025U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854160
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-025U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

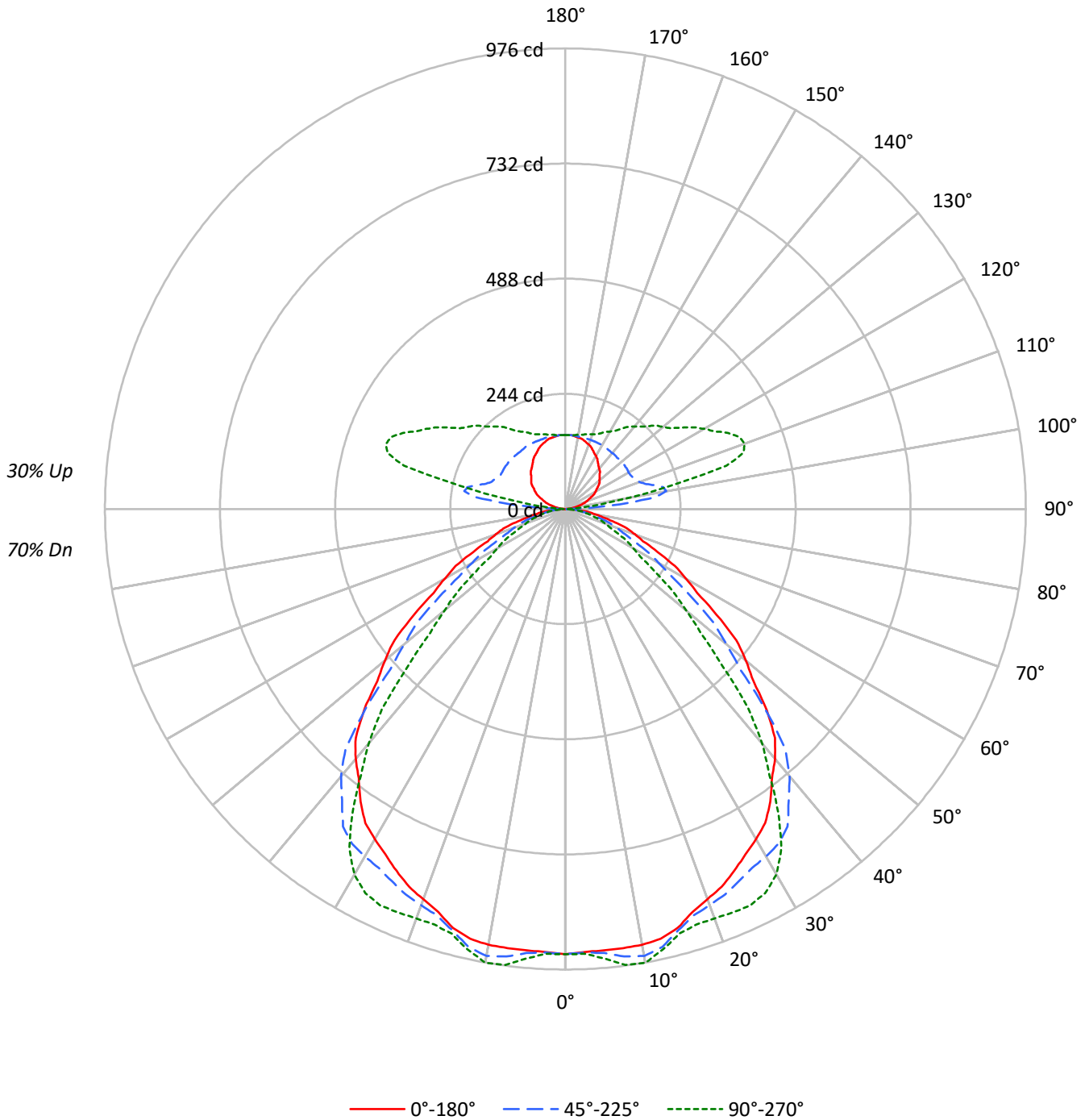
Lumens per Lamp: N/A
Luminaire Lumens: 3242.9 lumens
Efficiency: N/A
Efficacy: 128.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.2
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: P854160

CATALOG NUMBER: SQ2-PR1-025U-050D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854160

CATALOG NUMBER: SQ2-PR1-025U-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	50	30	10	0	
RCR																						
0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	74	74	70	
1	103	99	95	92	97	94	91	88	84	82	80	75	74	72	67	66	65	65	65	65	61	
2	95	88	82	77	89	83	78	73	75	71	67	67	64	61	60	58	56	56	56	56	52	
3	87	78	71	65	82	74	68	62	67	62	58	60	56	53	54	51	48	48	48	48	45	
4	80	69	62	56	75	66	59	54	60	54	50	54	50	46	49	45	42	42	42	42	39	
5	74	62	54	48	70	59	52	47	54	48	44	49	44	40	44	40	37	37	37	37	35	
6	68	56	48	42	64	54	46	41	49	43	38	45	40	36	40	36	33	33	33	33	31	
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	30	30	30	27	
8	59	47	39	33	56	45	37	32	41	35	31	37	32	29	34	30	27	27	27	27	25	
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	24	24	24	22	
10	51	39	32	27	49	38	31	26	35	29	25	32	27	24	29	25	22	22	22	22	20	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15234	15234	15234
5°	15214	15308	15494
10°	15375	15769	16005
15°	15370	15450	15579
20°	15122	15352	15864
25°	15079	15506	16518
30°	15062	15851	16677
35°	14919	16190	15526
40°	14575	15588	13664
45°	13792	13682	10805
50°	12539	11185	8382
55°	11020	9205	6525
60°	9536	7359	5373
65°	8229	6101	4703
70°	7402	5405	4178
75°	6781	4679	3843
80°	5904	3756	3756
85°	4279	3390	1778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 14908 cd/sqm



TEST NUMBER: P854160

CATALOG NUMBER: SQ2-PR1-025U-050D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.1	2.8
10°-20°	263.8	8.1
20°-30°	407.7	12.6
30°-40°	490.4	15.1
40°-50°	440.3	13.6
50°-60°	295.0	9.1
60°-70°	171.6	5.3
70°-80°	88.1	2.7
80°-90°	22.1	0.7
90°-100°	63.4	2.0
100°-110°	197.3	6.1
110°-120°	193.0	6.0
120°-130°	157.6	4.9
130°-140°	128.9	4.0
140°-150°	100.6	3.1
150°-160°	72.6	2.2
160°-170°	44.4	1.4
170°-180°	15.0	0.5
0°-30°	762.6	23.5
0°-40°	1253.0	38.6
0°-60°	1988.3	61.3
0°-90°	2270.2	70.0
90°-120°	453.7	14.0
90°-150°	840.8	25.9
90°-180°	973.0	30.0
0°-180°	3242.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	944	944	944	944	944	
5°	939	955	944	947	956	90
15°	920	957	924	927	932	258
25°	846	880	870	903	927	390
35°	757	764	821	806	788	472
45°	604	653	599	505	473	462
55°	392	406	327	252	232	352
65°	215	220	160	130	123	218
75°	109	106	75	63	62	115
85°	23	18	18	12	10	29
90°	0	1	3	3	3	1
95°	9	26	116	43	28	10
105°	35	49	194	371	354	37
115°	62	73	158	325	381	61
125°	86	95	156	256	300	76
135°	103	114	155	221	248	80
145°	120	130	155	191	208	75
155°	138	142	156	171	177	63
165°	151	152	157	162	164	42
175°	157	157	157	158	157	15
180°	157	157	157	157	157	



TEST NUMBER: P854160

CATALOG NUMBER: SQ2-PR1-025U-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	943.5	943.5	943.5	943.5	943.5
2.5°	939.7	951.0	940.5	941.3	943.5
5°	938.7	954.7	944.5	946.6	956.0
7.5°	938.5	961.3	956.4	962.3	974.7
10°	937.8	965.0	961.8	963.1	976.2
12.5°	933.1	964.9	950.3	949.1	956.2
15°	919.5	957.1	924.3	927.3	932.0
17.5°	895.4	934.8	903.5	914.1	923.3
20°	880.1	918.6	893.5	907.3	923.3
22.5°	866.2	904.8	884.3	903.6	925.6
25°	846.4	880.2	870.4	902.7	927.2
27.5°	825.6	845.6	857.2	900.4	917.6
30°	807.9	821.1	850.2	887.9	894.5
32.5°	788.7	796.6	841.0	860.6	852.2
35°	756.9	763.5	821.4	805.6	787.7
37.5°	719.2	732.8	777.3	731.9	711.4
40°	691.5	714.1	739.6	671.8	648.3
42.5°	657.7	693.8	689.6	603.2	574.4
45°	604.0	652.9	599.2	505.2	473.2
47.5°	540.7	590.9	503.0	419.1	389.1
50°	499.2	539.6	445.3	366.7	333.7
52.5°	456.9	486.0	396.1	317.5	287.6
55°	391.5	406.5	327.0	252.5	231.8
57.5°	331.4	341.0	267.2	203.9	188.7
60°	295.3	301.9	227.9	178.6	166.4
62.5°	262.2	267.3	196.4	157.1	147.9
65°	215.4	220.1	159.7	129.7	123.1
67.5°	178.3	180.8	131.4	107.8	101.6
70°	156.8	157.7	114.5	93.2	88.5
72.5°	137.5	136.2	98.3	80.9	77.7
75°	108.7	105.9	75.0	63.4	61.6
77.5°	81.2	78.2	52.7	48.9	48.9
80°	63.5	59.7	40.4	40.4	40.4
82.5°	47.3	42.1	31.2	31.1	30.4
85°	23.1	18.4	18.3	12.4	9.6
87.5°	6.2	6.3	2.9	2.9	2.9
90°	0.0	0.9	2.9	2.9	2.9
92.5°	3.1	10.8	36.7	12.1	9.8
95°	8.7	25.6	116.3	42.9	27.9
97.5°	15.8	33.3	192.7	119.9	75.6
100°	21.2	37.1	217.3	203.3	135.6
102.5°	26.5	41.8	212.7	290.3	227.9
105°	34.6	48.7	194.2	370.7	353.8
107.5°	42.7	55.9	176.5	376.9	395.6
110°	48.1	61.2	167.3	368.1	404.8



TEST NUMBER: P854160

CATALOG NUMBER: SQ2-PR1-025U-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	53.5	65.9	162.7	352.2	398.6
115°	61.5	72.8	157.7	325.3	380.7
117.5°	69.4	79.8	155.6	299.5	356.3
120°	74.0	84.4	154.8	284.9	339.4
122.5°	78.6	89.0	155.6	272.5	322.5
125°	85.6	95.0	155.8	255.8	300.0
127.5°	91.1	100.7	155.8	243.3	280.9
130°	94.2	104.6	155.8	236.3	270.2
132.5°	98.1	108.4	155.0	230.1	261.7
135°	102.9	114.2	154.8	220.8	248.1
137.5°	108.5	118.8	154.8	211.5	236.3
140°	111.5	121.9	154.8	205.3	227.9
142.5°	115.4	125.0	154.8	199.1	219.4
145°	120.2	129.6	154.8	190.8	207.7
147.5°	126.0	134.0	155.8	183.0	196.3
150°	129.8	136.4	155.8	179.1	189.4
152.5°	132.9	138.7	155.8	175.2	184.0
155°	137.5	142.2	155.8	171.3	176.9
157.5°	142.1	145.7	155.8	167.8	171.3
160°	145.2	148.0	155.8	165.4	168.3
162.5°	147.5	149.6	155.8	163.9	166.0
165°	151.0	151.9	156.7	161.6	163.5
167.5°	153.1	153.3	155.8	160.2	161.1
170°	153.8	154.8	155.8	158.7	159.6
172.5°	155.4	155.6	156.5	157.9	158.1
175°	156.7	156.7	156.7	157.7	156.7
177.5°	156.7	156.7	156.7	156.7	156.7
180°	156.7	156.7	156.7	156.7	156.7



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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	17.94	18.95	18.72	19.74	20.70	14.67	15.68	15.44	16.47	17.42
	3H	19.19	20.09	19.97	20.89	21.88	15.74	16.65	16.53	17.45	18.43
	4H	19.65	20.50	20.45	21.30	22.30	16.15	17.00	16.96	17.81	18.81
	6H	19.97	20.75	20.79	21.57	22.58	16.49	17.27	17.31	18.09	19.10
	8H	20.06	20.80	20.88	21.63	22.65	16.58	17.32	17.41	18.16	19.17
	12H	20.09	20.80	20.92	21.63	22.66	16.59	17.30	17.42	18.13	19.17
4H	2H	18.04	18.89	18.85	19.70	20.70	15.25	16.10	16.06	16.91	17.91
	3H	19.52	20.23	20.35	21.07	22.08	16.53	17.24	17.36	18.08	19.09
	4H	20.13	20.76	20.96	21.60	22.65	17.05	17.68	17.88	18.52	19.57
	6H	20.59	21.13	21.44	22.00	23.05	17.49	18.04	18.34	18.90	19.95
	8H	20.72	21.23	21.57	22.09	23.15	17.62	18.13	18.47	18.99	20.05
	12H	20.78	21.24	21.65	22.12	23.19	17.64	18.10	18.52	18.98	20.05
8H	4H	20.16	20.67	21.02	21.53	22.59	17.36	17.88	18.22	18.73	19.80
	6H	20.72	21.14	21.60	22.04	23.10	17.90	18.33	18.78	19.23	20.29
	8H	20.91	21.29	21.81	22.19	23.26	18.09	18.46	18.98	19.36	20.44
	12H	21.02	21.36	21.92	22.24	23.38	18.16	18.49	19.05	19.38	20.51
12H	4H	20.13	20.59	21.00	21.47	22.53	17.39	17.85	18.26	18.73	19.79
	6H	20.70	21.08	21.59	21.97	23.05	17.96	18.34	18.85	19.24	20.31
	8H	20.92	21.25	21.81	22.14	23.27	18.18	18.51	19.07	19.40	20.53