

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: P854172

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854172
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-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

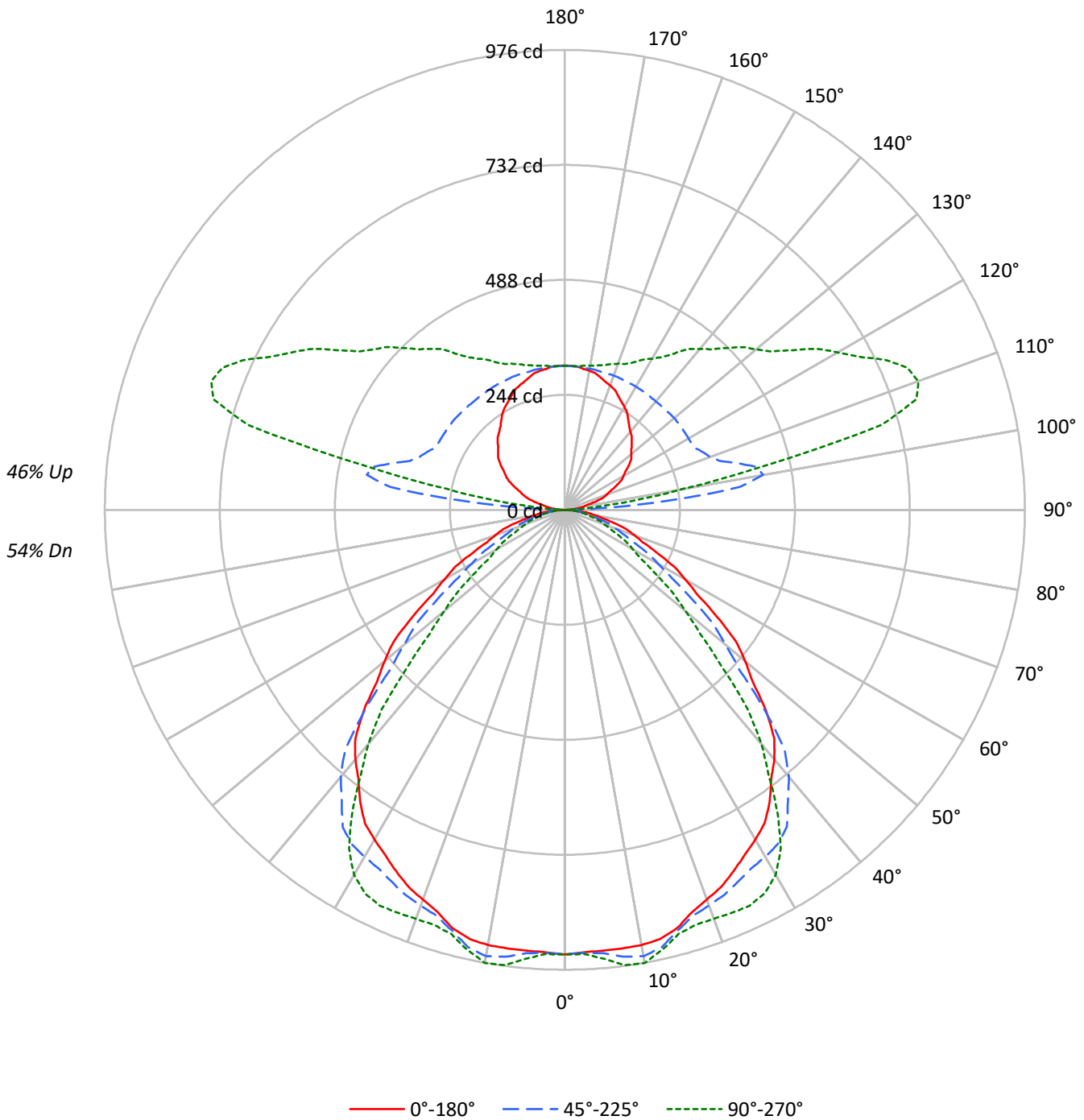
Lumens per Lamp: N/A
Luminaire Lumens: 4169.3 lumens
Efficiency: N/A
Efficacy: 127.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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

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

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.1	2.2
10°-20°	263.8	6.3
20°-30°	407.7	9.8
30°-40°	490.4	11.8
40°-50°	440.3	10.6
50°-60°	295.0	7.1
60°-70°	171.6	4.1
70°-80°	88.1	2.1
80°-90°	22.1	0.5
90°-100°	121.8	2.9
100°-110°	386.3	9.3
110°-120°	378.8	9.1
120°-130°	308.3	7.4
130°-140°	251.4	6.0
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°	762.6	18.3
0°-40°	1253.0	30.1
0°-60°	1988.3	47.7
0°-90°	2270.2	54.4
90°-120°	887.0	21.3
90°-150°	1642.6	39.4
90°-180°	1899.0	45.5
0°-180°	4169.3	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	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	



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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°	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



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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	16.65	17.51	17.58	18.45	19.66	13.37	14.23	14.30	15.17	16.38
	3H	17.88	18.65	18.82	19.60	20.83	14.44	15.21	15.38	16.15	17.39
	4H	18.34	19.06	19.29	20.01	21.25	14.84	15.56	15.79	16.52	17.76
	6H	18.65	19.32	19.62	20.28	21.53	15.17	15.84	16.14	16.80	18.05
	8H	18.74	19.37	19.71	20.34	21.59	15.26	15.89	16.23	16.86	18.12
	12H	18.76	19.36	19.74	20.33	21.61	15.27	15.87	16.24	16.83	18.11
4H	2H	16.73	17.45	17.69	18.40	19.65	13.94	14.67	14.90	15.62	16.86
	3H	18.20	18.80	19.17	19.78	21.04	15.21	15.81	16.18	16.79	18.05
	4H	18.79	19.34	19.77	20.32	21.60	15.72	16.26	16.69	17.24	18.52
	6H	19.25	19.72	20.24	20.72	22.00	16.15	16.62	17.14	17.62	18.90
	8H	19.38	19.82	20.37	20.81	22.10	16.27	16.71	17.27	17.71	19.00
	12H	19.43	19.83	20.44	20.84	22.14	16.30	16.69	17.30	17.70	19.00
8H	4H	18.82	19.26	19.81	20.25	21.55	16.02	16.46	17.01	17.45	18.75
	6H	19.37	19.73	20.39	20.77	22.06	16.56	16.92	17.57	17.95	19.25
	8H	19.57	19.89	20.59	20.91	22.22	16.74	17.06	17.77	18.08	19.39
	12H	19.67	19.95	20.70	20.97	22.33	16.80	17.09	17.83	18.10	19.46
12H	4H	18.78	19.17	19.79	20.18	21.48	16.04	16.43	17.05	17.44	18.74
	6H	19.36	19.67	20.38	20.70	22.01	16.62	16.94	17.64	17.96	19.27
	8H	19.57	19.85	20.59	20.86	22.22	16.82	17.11	17.85	18.12	19.48