

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: P855170

Luminaire Tested: SQ2-PH1-050U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855170
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-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

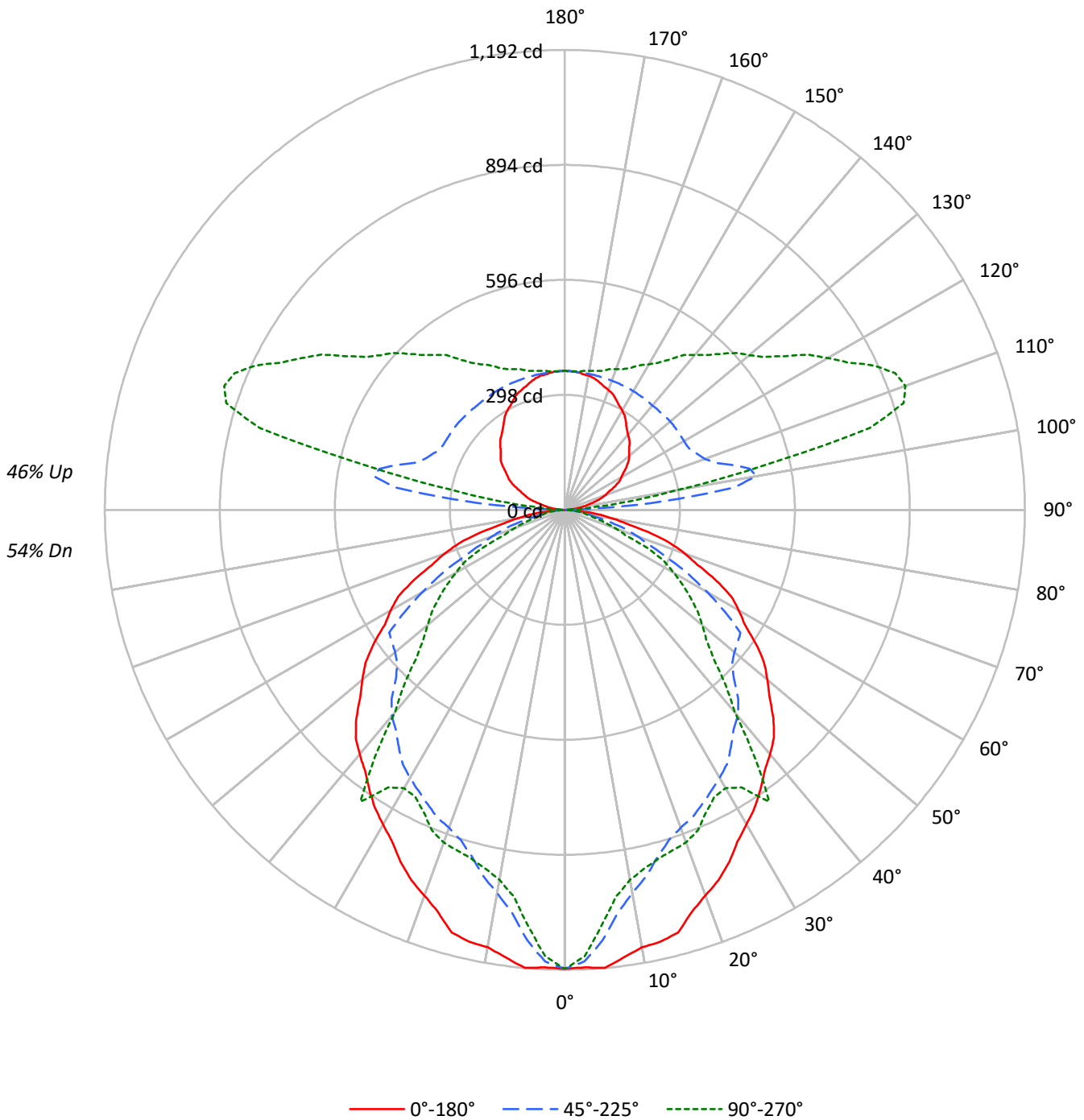
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4865.9 lumens
Efficiency: N/A
Efficacy: 149.3 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

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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	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°	19204	19204	19204
5°	19313	18157	17553
10°	18869	16531	15956
15°	18954	15549	15644
20°	18278	15069	15770
25°	17943	15000	15403
30°	17553	14958	15528
35°	17420	14789	18201
40°	17435	14693	14431
45°	17443	14134	12428
50°	17199	14413	11655
55°	16980	15640	11181
60°	16811	13705	10488
65°	16516	11110	9123
70°	15597	9456	6519
75°	13905	7130	4941
80°	11362	4630	4630
85°	7132	4187	3149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17443 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.7	2.2
10°-20°	275.3	5.7
20°-30°	403.6	8.3
30°-40°	488.8	10.0
40°-50°	480.7	9.9
50°-60°	418.5	8.6
60°-70°	290.9	6.0
70°-80°	137.9	2.8
80°-90°	30.9	0.6
90°-100°	143.3	2.9
100°-110°	454.6	9.3
110°-120°	445.8	9.2
120°-130°	362.7	7.5
130°-140°	295.8	6.1
140°-150°	230.6	4.7
150°-160°	166.1	3.4
160°-170°	101.5	2.1
170°-180°	34.3	0.7
0°-30°	783.6	16.1
0°-40°	1272.4	26.1
0°-60°	2171.6	44.6
0°-90°	2631.3	54.1
90°-120°	1043.6	21.4
90°-150°	1932.7	39.7
90°-180°	2235.0	45.9
0°-180°	4865.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1189	1189	1189	1189	1189	
5°	1192	1190	1120	1085	1083	112
15°	1134	1010	930	924	936	316
25°	1007	857	842	868	865	463
35°	884	714	750	815	923	554
45°	764	566	619	641	544	587
55°	603	441	556	400	397	539
65°	432	303	291	239	239	425
75°	223	154	114	82	79	236
85°	38	25	23	18	17	52
90°	0	1	3	3	3	2
95°	19	58	260	96	62	22
105°	79	111	448	854	818	84
115°	142	168	362	752	885	140
125°	196	219	356	590	695	174
135°	236	260	354	507	572	183
145°	276	297	354	438	476	173
155°	315	326	355	391	406	145
165°	343	346	356	370	373	97
175°	359	358	359	361	360	34
180°	360	360	360	360	360	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1189.4	1189.4	1189.4	1189.4	1189.4
2.5°	1186.7	1199.1	1171.3	1160.4	1158.6
5°	1191.6	1190.5	1120.3	1085.3	1083.0
7.5°	1169.9	1135.6	1051.8	1013.1	1011.3
10°	1150.9	1099.0	1008.3	973.2	973.2
12.5°	1146.4	1064.3	973.0	947.1	952.4
15°	1133.9	1010.0	930.2	923.8	935.9
17.5°	1092.7	959.3	897.0	911.8	925.9
20°	1063.8	932.2	877.0	904.5	917.8
22.5°	1039.3	905.9	862.6	892.5	899.7
25°	1007.2	856.7	842.0	867.9	864.6
27.5°	968.7	811.6	821.4	837.2	839.2
30°	941.5	784.5	802.3	818.5	832.9
32.5°	915.3	752.9	781.5	819.9	852.8
35°	883.8	714.5	750.3	815.0	923.4
37.5°	850.8	669.3	718.8	773.3	807.8
40°	827.2	636.9	697.1	764.3	684.7
42.5°	801.9	611.6	664.5	751.3	616.8
45°	763.9	565.8	619.0	640.6	544.3
47.5°	719.1	530.3	588.2	534.1	496.6
50°	684.7	506.5	573.8	488.3	464.0
52.5°	651.2	481.9	563.8	450.5	434.1
55°	603.2	440.6	555.6	400.5	397.2
57.5°	552.3	398.5	491.4	357.0	362.8
60°	520.6	371.2	424.4	331.5	324.8
62.5°	487.1	344.8	361.9	298.9	292.2
65°	432.3	302.8	290.8	238.8	238.8
67.5°	372.1	259.3	235.6	195.4	168.8
70°	330.4	230.9	200.3	155.7	138.1
72.5°	286.1	200.6	164.1	127.7	107.3
75°	222.9	154.4	114.3	81.5	79.2
77.5°	161.1	111.1	77.0	60.4	60.7
80°	122.2	84.6	49.8	48.7	49.8
82.5°	86.0	58.2	37.1	38.7	38.9
85°	38.5	25.2	22.6	18.1	17.0
87.5°	8.1	7.5	5.2	5.2	5.2
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.3	25.1	80.3	26.7	18.8
95°	19.2	57.9	260.3	96.5	62.2
97.5°	35.8	75.1	440.9	275.4	169.1
100°	47.5	85.1	502.5	458.0	297.6
102.5°	60.2	96.1	491.6	672.7	514.9
105°	79.2	111.2	448.1	853.5	818.1
107.5°	98.2	127.9	406.7	872.4	920.2
110°	110.9	139.6	385.9	850.7	939.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	123.6	150.5	374.1	813.2	925.6
115°	141.5	168.1	362.1	752.1	884.8
117.5°	158.9	184.1	357.4	693.3	827.1
120°	169.7	194.1	356.5	656.9	786.4
122.5°	180.6	204.0	356.5	627.8	748.4
125°	195.8	219.0	356.5	589.7	694.7
127.5°	209.1	231.4	356.5	560.2	649.7
130°	217.3	240.5	356.5	542.7	623.4
132.5°	225.4	248.6	355.6	528.9	601.8
135°	236.5	259.7	354.2	507.2	571.5
137.5°	247.4	271.7	354.0	486.5	543.9
140°	254.6	279.0	353.1	471.9	524.0
142.5°	263.7	287.1	354.0	457.3	505.9
145°	276.1	297.2	354.2	437.6	476.4
147.5°	288.6	306.5	354.4	420.3	452.0
150°	297.6	312.0	355.3	410.2	435.7
152.5°	304.9	317.4	355.3	402.0	423.0
155°	314.6	325.7	355.3	390.8	406.3
157.5°	325.0	332.5	356.5	383.9	394.5
160°	330.4	337.0	356.5	379.2	388.2
162.5°	335.9	340.7	356.5	375.6	381.8
165°	342.9	346.2	356.5	370.1	373.4
167.5°	349.5	350.4	357.6	366.2	369.1
170°	353.1	353.1	357.6	364.4	365.5
172.5°	354.9	355.8	357.6	362.6	362.8
175°	358.7	357.6	358.7	360.9	359.9
177.5°	359.9	359.0	359.0	360.7	359.0
180°	359.9	359.9	359.9	359.9	359.9



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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	17.97	18.86	18.89	19.80	21.01	16.64	17.53	17.56	18.47	19.68
	3H	19.99	20.79	20.93	21.74	22.98	17.67	18.47	18.61	19.42	20.66
	4H	20.72	21.48	21.67	22.43	23.68	17.89	18.64	18.84	19.60	20.84
	6H	21.21	21.91	22.17	22.87	24.12	18.04	18.73	19.00	19.69	20.95
	8H	21.34	22.00	22.30	22.97	24.23	18.07	18.73	19.04	19.71	20.96
	12H	21.38	22.01	22.36	22.98	24.26	18.07	18.70	19.04	19.67	20.95
4H	2H	18.34	19.10	19.30	20.05	21.30	17.28	18.04	18.24	18.99	20.24
	3H	20.45	21.08	21.42	22.06	23.32	18.47	19.09	19.43	20.08	21.34
	4H	21.27	21.84	22.24	22.82	24.10	18.74	19.31	19.72	20.29	21.58
	6H	21.86	22.35	22.84	23.35	24.63	18.95	19.44	19.94	20.45	21.73
	8H	22.03	22.49	23.02	23.48	24.78	19.01	19.47	20.00	20.46	21.76
	12H	22.10	22.51	23.10	23.52	24.82	19.02	19.43	20.03	20.44	21.75
8H	4H	21.29	21.75	22.28	22.74	24.04	18.96	19.42	19.95	20.41	21.71
	6H	21.94	22.32	22.96	23.36	24.65	19.23	19.61	20.25	20.65	21.95
	8H	22.17	22.50	23.19	23.53	24.84	19.34	19.67	20.36	20.70	22.01
	12H	22.28	22.58	23.31	23.59	24.95	19.38	19.68	20.41	20.69	22.05
12H	4H	21.24	21.66	22.25	22.67	23.97	18.96	19.37	19.97	20.38	21.69
	6H	21.92	22.25	22.94	23.27	24.59	19.26	19.60	20.29	20.62	21.94
	8H	22.15	22.44	23.18	23.46	24.82	19.38	19.68	20.41	20.69	22.05