

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: P855174

Luminaire Tested: SQ2-PH1-025U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855174  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-025U-050D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

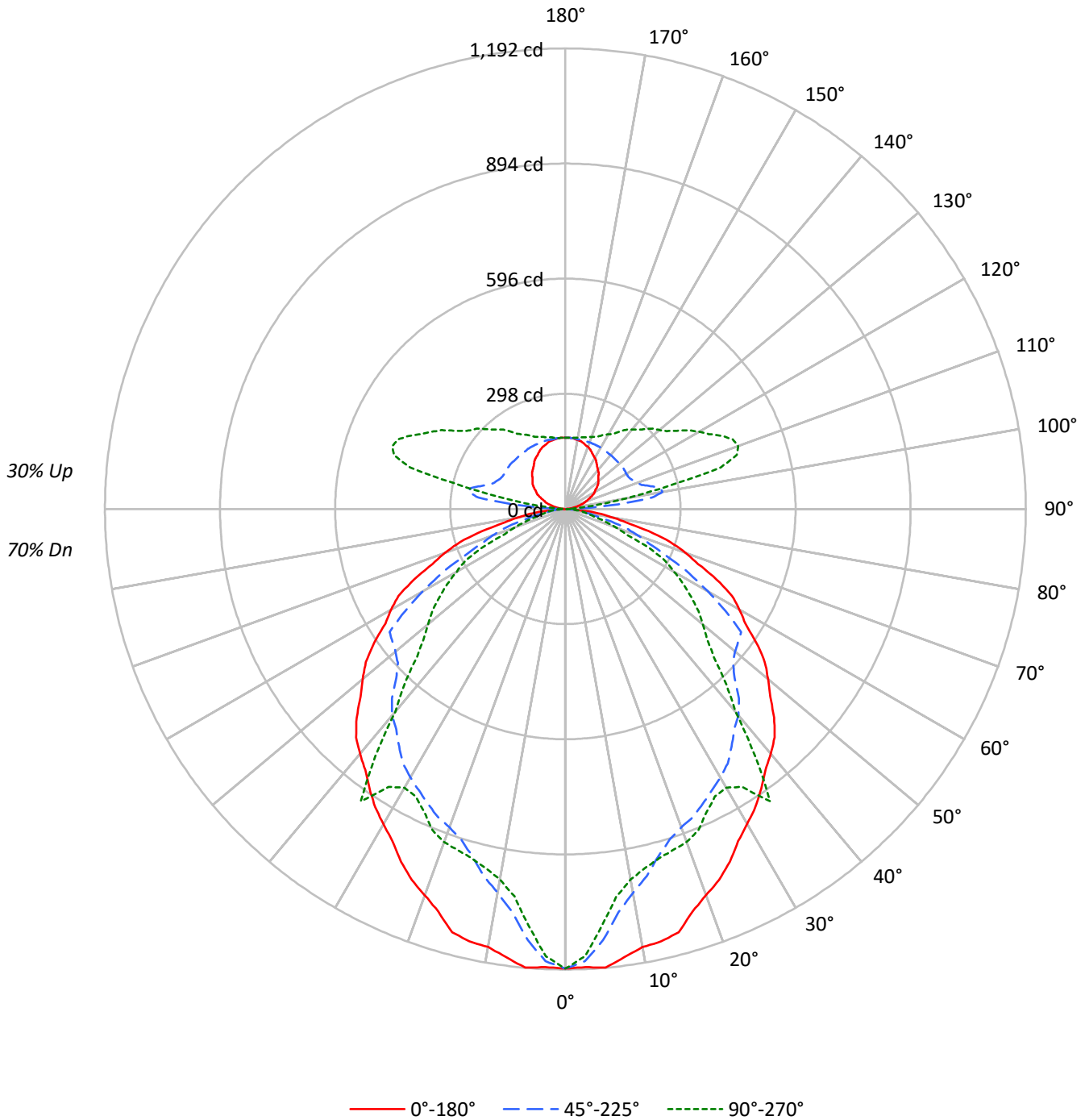
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3775.7 lumens  
Efficiency: N/A  
Efficacy: 149.8 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: 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

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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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	74	74	70	
1	103	98	94	91	97	93	90	87	83	81	78	74	72	71	66	65	63	63	63	63	59	
2	94	86	80	75	88	82	76	71	73	69	65	66	62	59	58	56	54	54	54	54	50	
3	85	76	68	62	81	72	65	60	65	59	55	58	54	50	52	49	46	46	46	46	43	
4	78	67	59	53	74	64	57	51	58	52	47	52	47	43	46	43	40	40	40	40	37	
5	72	60	52	46	68	57	50	44	52	46	41	47	42	38	42	38	35	35	35	35	32	
6	66	54	46	40	63	52	44	38	47	40	36	42	37	33	38	34	31	31	31	31	28	
7	62	49	41	35	58	47	39	34	42	36	32	39	33	29	35	30	27	27	27	27	25	
8	57	45	37	31	54	43	35	30	39	33	28	35	30	26	32	28	24	24	24	24	22	
9	53	41	33	28	50	39	32	27	36	30	25	33	27	24	30	25	22	22	22	22	20	
10	50	38	30	25	47	36	29	24	33	27	23	30	25	22	27	23	20	20	20	20	18	

**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	2.8
10°-20°	275.3	7.3
20°-30°	403.6	10.7
30°-40°	488.8	12.9
40°-50°	480.7	12.7
50°-60°	418.5	11.1
60°-70°	290.9	7.7
70°-80°	137.9	3.7
80°-90°	30.9	0.8
90°-100°	74.6	2.0
100°-110°	232.1	6.1
110°-120°	227.1	6.0
120°-130°	185.4	4.9
130°-140°	151.7	4.0
140°-150°	118.4	3.1
150°-160°	85.4	2.3
160°-170°	52.2	1.4
170°-180°	17.6	0.5
0°-30°	783.6	20.8
0°-40°	1272.4	33.7
0°-60°	2171.6	57.5
0°-90°	2631.3	69.7
90°-120°	533.8	14.1
90°-150°	989.2	26.2
90°-180°	1144.0	30.3
0°-180°	3775.7	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°	10	30	137	50	33	12
105°	41	57	228	436	416	43
115°	72	86	186	383	448	71
125°	101	112	183	301	353	89
135°	121	134	182	260	292	94
145°	142	152	182	224	244	89
155°	162	167	183	202	208	75
165°	178	179	184	190	192	50
175°	184	184	184	186	184	17
180°	184	184	184	184	184	



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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°	3.6	12.7	43.2	14.1	11.5
95°	10.2	30.1	136.9	50.5	32.8
97.5°	18.6	39.2	226.7	141.1	88.9
100°	24.9	43.7	255.6	239.1	159.6
102.5°	31.2	49.1	250.2	341.5	268.1
105°	40.7	57.4	228.5	436.3	416.3
107.5°	50.2	65.7	207.7	443.5	465.5
110°	56.6	72.1	196.8	433.1	476.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	62.9	77.5	191.4	414.4	469.1
115°	72.4	85.7	185.5	382.7	448.0
117.5°	81.7	93.8	183.0	352.4	419.3
120°	87.1	99.2	182.1	335.2	399.4
122.5°	92.6	104.7	183.0	320.6	379.4
125°	100.7	111.7	183.2	301.0	353.0
127.5°	107.3	118.5	183.2	286.3	330.6
130°	110.9	123.0	183.2	278.0	317.9
132.5°	115.4	127.5	182.3	270.8	307.9
135°	121.1	134.3	182.1	259.8	291.9
137.5°	127.7	139.8	182.1	248.9	278.0
140°	131.3	143.4	182.1	241.6	268.1
142.5°	135.8	147.0	182.1	234.3	258.1
145°	141.5	152.4	182.1	224.4	244.3
147.5°	148.2	157.8	183.2	215.4	231.0
150°	152.8	160.5	183.2	210.7	222.8
152.5°	156.4	163.2	183.2	206.1	216.5
155°	161.8	167.3	183.2	201.5	208.1
157.5°	167.3	171.4	183.2	197.4	201.5
160°	170.9	174.2	183.2	194.6	197.9
162.5°	173.5	176.0	183.2	192.8	195.2
165°	177.6	178.7	184.3	190.1	192.3
167.5°	180.0	180.3	183.2	188.5	189.6
170°	181.0	182.1	183.2	186.7	187.7
172.5°	182.8	183.0	184.1	185.8	185.9
175°	184.3	184.3	184.3	185.5	184.3
177.5°	184.3	184.3	184.3	184.3	184.3
180°	184.3	184.3	184.3	184.3	184.3

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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	19.25	20.31	20.01	21.10	22.06	17.92	18.98	18.69	19.77	20.73
	3H	21.29	22.24	22.07	23.04	24.03	18.97	19.92	19.75	20.72	21.71
	4H	22.03	22.92	22.83	23.73	24.73	19.19	20.09	19.99	20.89	21.90
	6H	22.52	23.35	23.33	24.16	25.18	19.35	20.17	20.16	20.99	22.00
	8H	22.65	23.44	23.47	24.27	25.29	19.38	20.17	20.21	21.00	22.02
	12H	22.70	23.45	23.53	24.28	25.32	19.39	20.14	20.22	20.97	22.01
4H	2H	19.65	20.54	20.45	21.35	22.35	18.58	19.48	19.39	20.29	21.29
	3H	21.77	22.51	22.59	23.36	24.38	19.78	20.53	20.60	21.37	22.39
	4H	22.59	23.27	23.42	24.11	25.16	20.07	20.74	20.90	21.58	22.63
	6H	23.19	23.77	24.04	24.64	25.69	20.29	20.87	21.13	21.73	22.79
	8H	23.36	23.91	24.21	24.77	25.83	20.35	20.89	21.20	21.75	22.82
	12H	23.44	23.93	24.31	24.81	25.88	20.36	20.85	21.23	21.74	22.80
8H	4H	22.63	23.17	23.48	24.03	25.10	20.30	20.84	21.15	21.70	22.77
	6H	23.29	23.74	24.17	24.64	25.70	20.58	21.03	21.46	21.93	22.99
	8H	23.51	23.91	24.40	24.81	25.89	20.68	21.08	21.57	21.98	23.06
	12H	23.64	23.99	24.53	24.88	26.01	20.74	21.09	21.63	21.98	23.11
12H	4H	22.59	23.08	23.46	23.96	25.03	20.30	20.79	21.17	21.68	22.74
	6H	23.26	23.66	24.15	24.56	25.64	20.61	21.01	21.50	21.91	22.99
	8H	23.50	23.85	24.40	24.74	25.88	20.73	21.09	21.63	21.97	23.11