

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: P855118

Luminaire Tested: SQ2-PR1-025U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855118
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-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

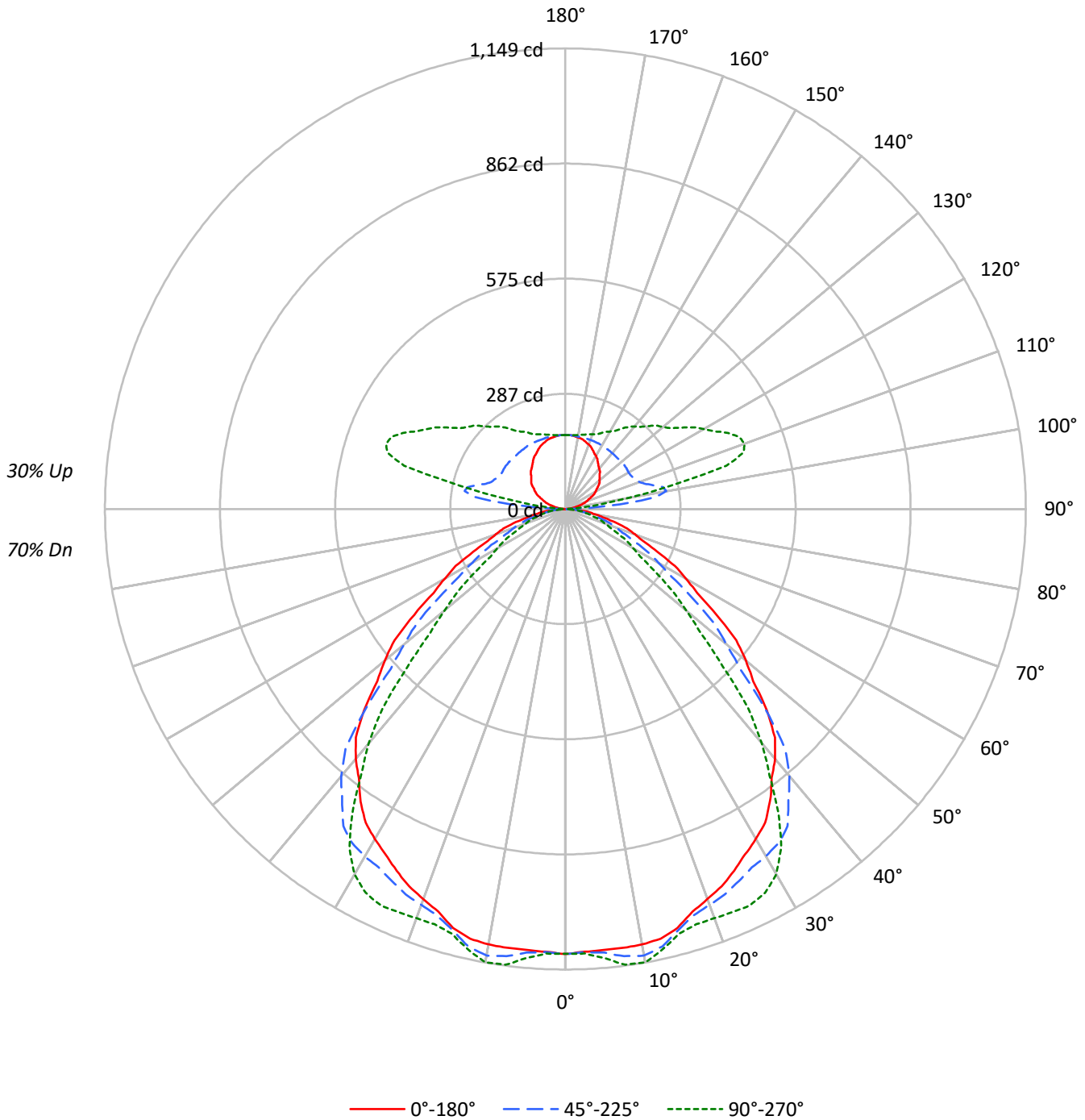
Lumens per Lamp: N/A
Luminaire Lumens: 3815.5 lumens
Efficiency: N/A
Efficacy: 151.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

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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	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°	17925	17925	17925
5°	17901	18011	18232
10°	18090	18554	18831
15°	18084	18178	18330
20°	17792	18063	18667
25°	17742	18246	19434
30°	17723	18651	19621
35°	17554	19048	18268
40°	17150	18341	16075
45°	16228	16098	12714
50°	14752	13162	9864
55°	12966	10832	7676
60°	11218	8661	6323
65°	9685	7179	5536
70°	8710	6359	4914
75°	7979	5508	4517
80°	6946	4417	4417
85°	5039	3983	2093

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 17543 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.2	2.8
10°-20°	310.3	8.1
20°-30°	479.7	12.6
30°-40°	577.0	15.1
40°-50°	518.1	13.6
50°-60°	347.1	9.1
60°-70°	201.9	5.3
70°-80°	103.7	2.7
80°-90°	26.0	0.7
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	2.2
160°-170°	52.2	1.4
170°-180°	17.6	0.5
0°-30°	897.3	23.5
0°-40°	1474.3	38.6
0°-60°	2339.5	61.3
0°-90°	2671.1	70.0
90°-120°	533.8	14.0
90°-150°	989.2	25.9
90°-180°	1144.0	30.0
0°-180°	3815.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1110	1110	1110	1110	1110	
5°	1104	1123	1111	1114	1125	105
15°	1082	1126	1088	1091	1097	304
25°	996	1036	1024	1062	1091	459
35°	891	898	966	948	927	555
45°	711	768	705	594	557	544
55°	461	478	385	297	273	414
65°	254	259	188	152	145	256
75°	128	125	88	75	72	136
85°	27	22	22	15	11	34
90°	0	1	3	3	3	1
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°	1110.2	1110.2	1110.2	1110.2	1110.2
2.5°	1105.6	1118.9	1106.5	1107.6	1110.2
5°	1104.5	1123.3	1111.3	1113.8	1124.9
7.5°	1104.3	1131.1	1125.3	1132.2	1146.8
10°	1103.4	1135.5	1131.7	1133.1	1148.6
12.5°	1097.9	1135.4	1118.1	1116.7	1125.1
15°	1081.9	1126.1	1087.5	1091.0	1096.6
17.5°	1053.6	1099.9	1063.1	1075.5	1086.4
20°	1035.5	1080.9	1051.3	1067.6	1086.4
22.5°	1019.2	1064.6	1040.5	1063.2	1089.1
25°	995.9	1035.7	1024.2	1062.2	1090.9
27.5°	971.4	994.8	1008.5	1059.5	1079.6
30°	950.6	966.1	1000.4	1044.8	1052.4
32.5°	928.0	937.2	989.5	1012.6	1002.7
35°	890.6	898.4	966.4	947.9	926.8
37.5°	846.3	862.2	914.6	861.1	837.0
40°	813.7	840.3	870.2	790.5	762.7
42.5°	773.8	816.4	811.4	709.7	675.8
45°	710.7	768.3	705.0	594.3	556.8
47.5°	636.2	695.3	591.9	493.1	457.9
50°	587.3	634.9	524.0	431.4	392.7
52.5°	537.5	571.8	466.0	373.6	338.4
55°	460.6	478.2	384.8	297.1	272.7
57.5°	390.0	401.3	314.4	239.9	222.0
60°	347.4	355.1	268.2	210.1	195.8
62.5°	308.5	314.5	231.1	184.9	174.0
65°	253.5	259.0	187.9	152.5	144.9
67.5°	209.8	212.6	154.6	126.9	119.5
70°	184.5	185.6	134.7	109.7	104.1
72.5°	161.8	160.2	115.7	95.2	91.4
75°	127.9	124.6	88.3	74.7	72.4
77.5°	95.5	92.0	62.0	57.5	57.5
80°	74.7	70.3	47.5	47.5	47.5
82.5°	55.7	49.5	36.7	36.7	35.8
85°	27.2	21.6	21.5	14.6	11.3
87.5°	7.2	7.5	3.4	3.4	3.4
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	18.51	19.52	19.28	20.31	21.26	15.23	16.24	16.00	17.03	17.99
	3H	19.75	20.65	20.54	21.45	22.44	16.31	17.21	17.10	18.01	19.00
	4H	20.21	21.06	21.02	21.87	22.87	16.72	17.57	17.52	18.37	19.37
	6H	20.54	21.32	21.35	22.13	23.15	17.05	17.84	17.87	18.65	19.66
	8H	20.62	21.37	21.45	22.20	23.21	17.14	17.89	17.97	18.72	19.73
	12H	20.66	21.36	21.49	22.19	23.23	17.16	17.86	17.99	18.69	19.73
4H	2H	18.60	19.45	19.41	20.26	21.26	15.82	16.67	16.63	17.48	18.47
	3H	20.09	20.79	20.91	21.63	22.65	17.10	17.80	17.92	18.64	19.66
	4H	20.69	21.33	21.52	22.17	23.21	17.61	18.25	18.45	19.09	20.13
	6H	21.15	21.70	22.00	22.56	23.61	18.06	18.60	18.91	19.47	20.52
	8H	21.29	21.80	22.14	22.66	23.72	18.18	18.69	19.03	19.55	20.61
	12H	21.35	21.81	22.22	22.69	23.75	18.21	18.67	19.08	19.55	20.61
8H	4H	20.73	21.24	21.58	22.10	23.16	17.93	18.44	18.78	19.30	20.36
	6H	21.28	21.70	22.16	22.61	23.67	18.47	18.89	19.35	19.79	20.85
	8H	21.48	21.86	22.37	22.75	23.83	18.65	19.03	19.54	19.93	21.00
	12H	21.59	21.92	22.48	22.81	23.94	18.72	19.05	19.61	19.94	21.07
12H	4H	20.69	21.15	21.56	22.03	23.10	17.95	18.41	18.82	19.29	20.36
	6H	21.27	21.64	22.16	22.54	23.62	18.53	18.90	19.42	19.80	20.88
	8H	21.49	21.82	22.38	22.70	23.84	18.74	19.07	19.63	19.96	21.09