

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: P855381

Luminaire Tested: SQ2-PH1-025U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855381
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-840-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

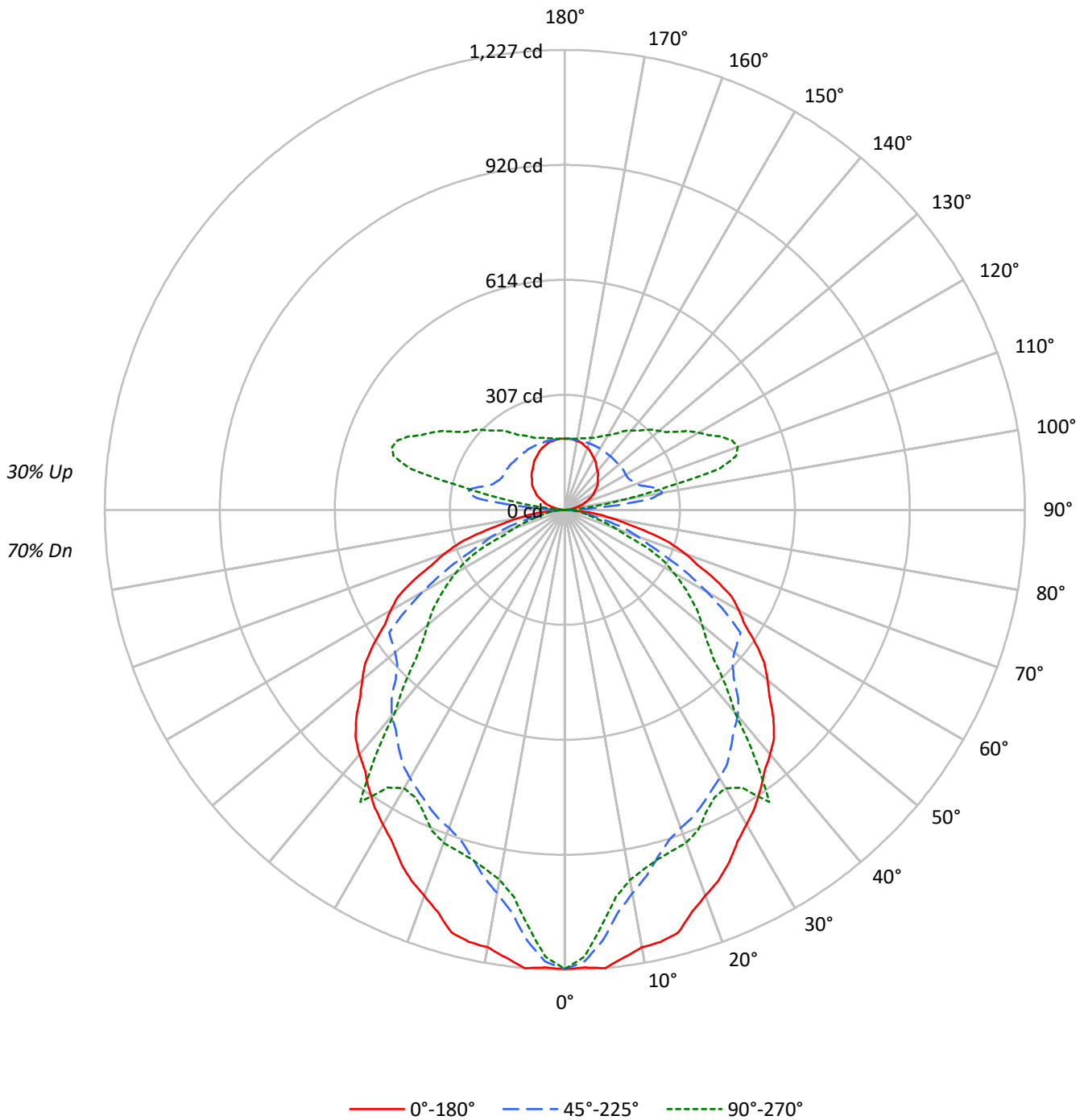
Lumens per Lamp: N/A
Luminaire Lumens: 3888.3 lumens
Efficiency: N/A
Efficacy: 154.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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									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	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	74	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	63	63	63	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	54	54	54	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	46	46	46	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	40	40	40	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	35	35	35	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	31	31	31	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	27	27	27	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	24	24	24	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	22	22	22	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	20	20	20	20	20	20	20	18																	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19775	19775	19775
5°	19890	18699	18076
10°	19431	17024	16431
15°	19519	16013	16110
20°	18823	15519	16239
25°	18478	15447	15862
30°	18077	15405	15991
35°	17940	15230	18745
40°	17955	15131	14861
45°	17961	14556	12801
50°	17711	14843	12002
55°	17486	16107	11516
60°	17312	14111	10802
65°	17009	11442	9394
70°	16065	9739	6713
75°	14323	7342	5090
80°	11706	4770	4770
85°	7336	4316	3242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17961 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.8	2.8
10°-20°	283.5	7.3
20°-30°	415.7	10.7
30°-40°	503.4	12.9
40°-50°	495.0	12.7
50°-60°	430.9	11.1
60°-70°	299.6	7.7
70°-80°	142.0	3.7
80°-90°	31.8	0.8
90°-100°	76.8	2.0
100°-110°	239.0	6.1
110°-120°	233.8	6.0
120°-130°	190.9	4.9
130°-140°	156.2	4.0
140°-150°	121.9	3.1
150°-160°	88.0	2.3
160°-170°	53.8	1.4
170°-180°	18.1	0.5
0°-30°	806.9	20.8
0°-40°	1310.3	33.7
0°-60°	2236.3	57.5
0°-90°	2709.7	69.7
90°-120°	549.7	14.1
90°-150°	1018.7	26.2
90°-180°	1179.0	30.3
0°-180°	3888.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1225	1225	1225	1225	1225	
5°	1227	1226	1154	1118	1115	115
15°	1168	1040	958	951	964	326
25°	1037	882	867	894	890	477
35°	910	736	773	839	951	570
45°	787	583	638	660	561	605
55°	621	454	572	412	409	555
65°	445	312	300	246	246	437
75°	230	159	118	84	82	243
85°	40	26	23	19	18	53
90°	0	1	4	4	4	2
95°	10	31	141	52	34	12
105°	42	59	235	449	429	44
115°	75	88	191	394	461	74
125°	104	115	189	310	364	92
135°	125	138	188	268	301	97
145°	146	157	188	231	252	91
155°	167	172	189	208	214	77
165°	183	184	190	196	198	51
175°	190	190	190	191	190	18
180°	190	190	190	190	190	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1224.8	1224.8	1224.8	1224.8	1224.8
2.5°	1222.0	1234.9	1206.2	1195.0	1193.1
5°	1227.2	1226.0	1153.7	1117.6	1115.3
7.5°	1204.8	1169.5	1083.1	1043.3	1041.4
10°	1185.2	1131.7	1038.4	1002.2	1002.2
12.5°	1180.6	1096.1	1002.0	975.3	980.8
15°	1167.7	1040.1	958.0	951.3	963.8
17.5°	1125.3	987.9	923.7	939.0	953.5
20°	1095.5	959.9	903.2	931.5	945.1
22.5°	1070.3	932.9	888.3	919.2	926.5
25°	1037.2	882.2	867.1	893.7	890.4
27.5°	997.6	835.8	845.8	862.2	864.3
30°	969.6	807.9	826.3	842.9	857.7
32.5°	942.6	775.3	804.8	844.3	878.2
35°	910.2	735.8	772.7	839.3	951.0
37.5°	876.1	689.2	740.3	796.3	831.9
40°	851.9	655.9	717.9	787.1	705.1
42.5°	825.8	629.8	684.3	773.7	635.1
45°	786.6	582.7	637.5	659.7	560.6
47.5°	740.5	546.1	605.8	550.1	511.4
50°	705.1	521.6	590.9	502.9	477.8
52.5°	670.6	496.2	580.6	463.9	447.0
55°	621.2	453.7	572.2	412.4	409.1
57.5°	568.7	410.3	506.0	367.7	373.6
60°	536.1	382.3	437.0	341.3	334.5
62.5°	501.6	355.1	372.7	307.8	300.9
65°	445.2	311.9	299.5	245.9	245.9
67.5°	383.2	267.0	242.6	201.3	173.9
70°	340.3	237.7	206.3	160.4	142.2
72.5°	294.6	206.6	169.0	131.5	110.5
75°	229.6	159.0	117.7	83.9	81.6
77.5°	166.0	114.4	79.2	62.2	62.5
80°	125.9	87.2	51.3	50.1	51.3
82.5°	88.6	59.9	38.2	39.9	40.1
85°	39.6	26.0	23.3	18.6	17.5
87.5°	8.4	7.7	5.4	5.4	5.4
90°	0.0	1.2	3.5	3.5	3.5
92.5°	3.7	13.1	44.5	14.6	11.9
95°	10.5	31.0	141.0	52.0	33.8
97.5°	19.1	40.3	233.4	145.3	91.6
100°	25.6	45.0	263.3	246.2	164.3
102.5°	32.2	50.6	257.7	351.7	276.1
105°	42.0	59.1	235.3	449.3	428.8
107.5°	51.7	67.7	213.9	456.7	479.3
110°	58.3	74.2	202.7	446.0	490.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	64.8	79.8	197.1	426.8	483.1
115°	74.6	88.2	191.0	394.1	461.4
117.5°	84.1	96.6	188.4	362.9	431.8
120°	89.7	102.2	187.5	345.2	411.3
122.5°	95.3	107.8	188.4	330.2	390.8
125°	103.7	115.0	188.7	310.0	363.5
127.5°	110.5	122.0	188.7	294.8	340.4
130°	114.2	126.7	188.7	286.3	327.4
132.5°	118.9	131.3	187.7	278.9	317.1
135°	124.7	138.3	187.5	267.6	300.6
137.5°	131.5	143.9	187.5	256.3	286.3
140°	135.2	147.7	187.5	248.8	276.1
142.5°	139.8	151.4	187.5	241.2	265.8
145°	145.7	157.0	187.5	231.1	251.6
147.5°	152.7	162.5	188.7	221.8	237.9
150°	157.3	165.3	188.7	217.0	229.5
152.5°	161.1	168.1	188.7	212.2	222.9
155°	166.7	172.2	188.7	207.6	214.3
157.5°	172.2	176.6	188.7	203.2	207.6
160°	176.0	179.4	188.7	200.4	203.8
162.5°	178.7	181.2	188.7	198.6	201.0
165°	182.9	184.0	189.8	195.8	198.0
167.5°	185.4	185.6	188.7	194.2	195.2
170°	186.3	187.5	188.7	192.3	193.3
172.5°	188.2	188.4	189.6	191.4	191.5
175°	189.8	189.8	189.8	191.0	189.8
177.5°	189.8	189.8	189.8	189.8	189.8
180°	189.8	189.8	189.8	189.8	189.8



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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	19.35	20.41	20.12	21.20	22.16	18.02	19.08	18.79	19.87	20.83
	3H	21.39	22.34	22.17	23.14	24.13	19.07	20.02	19.85	20.82	21.81
	4H	22.13	23.02	22.93	23.83	24.83	19.29	20.19	20.09	21.00	22.00
	6H	22.62	23.45	23.44	24.27	25.28	19.45	20.27	20.26	21.09	22.10
	8H	22.75	23.54	23.58	24.38	25.39	19.48	20.27	20.31	21.11	22.12
	12H	22.81	23.55	23.63	24.38	25.43	19.49	20.24	20.32	21.07	22.11
4H	2H	19.75	20.64	20.55	21.45	22.45	18.69	19.58	19.49	20.39	21.39
	3H	21.87	22.62	22.69	23.46	24.48	19.88	20.63	20.70	21.47	22.49
	4H	22.70	23.37	23.53	24.21	25.26	20.17	20.84	21.00	21.69	22.73
	6H	23.29	23.88	24.14	24.74	25.79	20.39	20.97	21.23	21.84	22.89
	8H	23.47	24.01	24.32	24.87	25.94	20.45	20.99	21.30	21.85	22.92
	12H	23.54	24.03	24.41	24.91	25.98	20.47	20.96	21.34	21.84	22.91
8H	4H	22.73	23.27	23.58	24.13	25.20	20.40	20.94	21.25	21.81	22.87
	6H	23.39	23.84	24.27	24.74	25.81	20.68	21.13	21.56	22.03	23.10
	8H	23.62	24.02	24.51	24.91	25.99	20.78	21.18	21.67	22.08	23.16
	12H	23.74	24.09	24.63	24.98	26.11	20.84	21.19	21.73	22.08	23.21
12H	4H	22.69	23.18	23.56	24.06	25.13	20.41	20.90	21.28	21.78	22.85
	6H	23.36	23.76	24.25	24.66	25.74	20.71	21.11	21.60	22.01	23.09
	8H	23.61	23.96	24.50	24.85	25.98	20.84	21.19	21.73	22.08	23.21