

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: P855373

Luminaire Tested: SQ2-PH1-075U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855373
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-075U-050D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

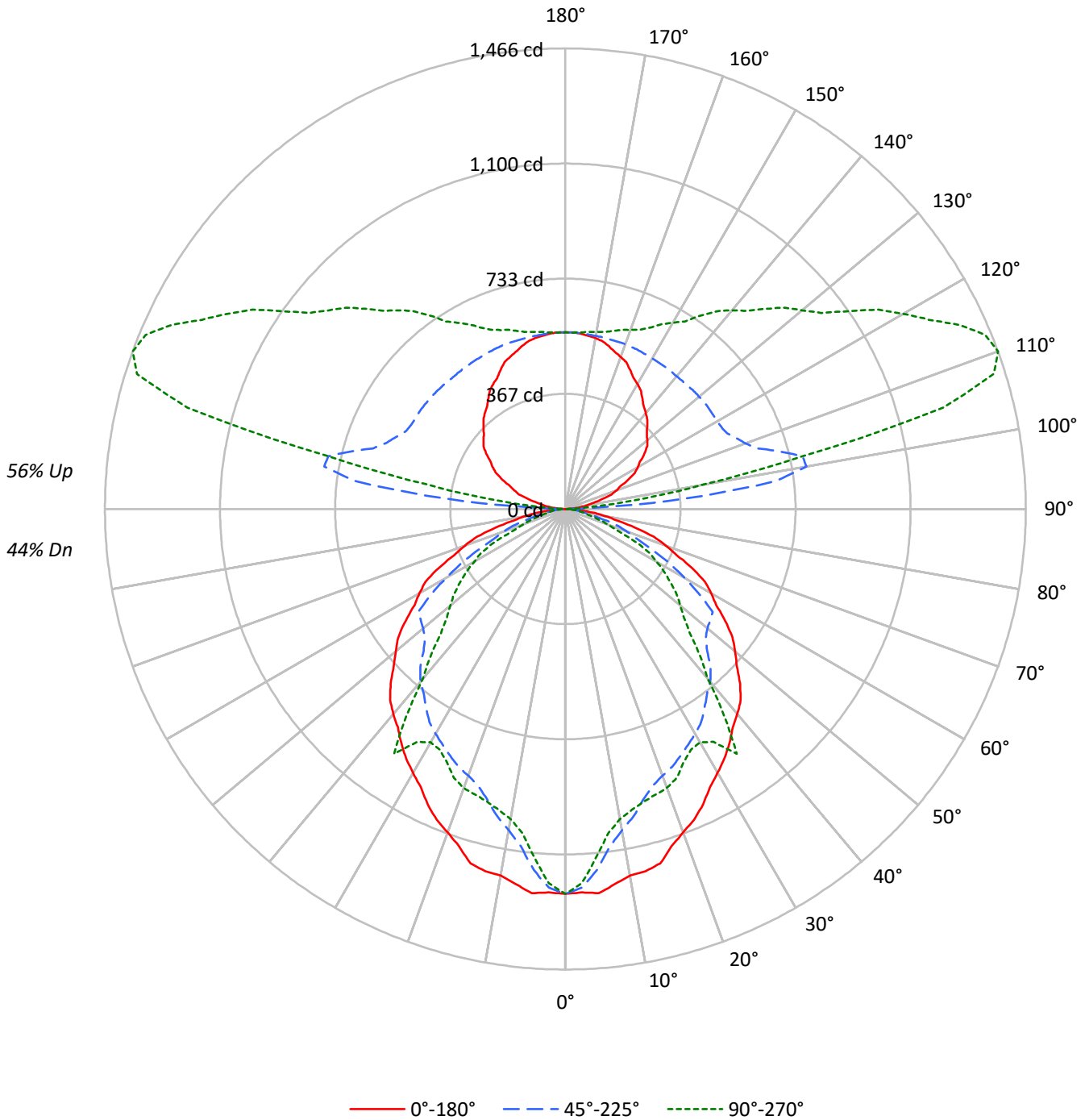
Lumens per Lamp: N/A
Luminaire Lumens: 6194.5 lumens
Efficiency: N/A
Efficacy: 150.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 41.1
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

TEST NUMBER: P855373

CATALOG NUMBER: SQ2-PH1-075U-050D-840-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855373

CATALOG NUMBER: SQ2-PH1-075U-050D-840-UNV-STD-W-4

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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	44				
1	97	92	89	85	88	85	81	79	70	68	66	57	56	54	45	44	43	37				
2	88	81	75	70	80	74	69	65	62	58	55	50	48	45	40	38	36	31				
3	80	71	64	58	73	65	59	54	55	50	46	44	41	38	35	33	31	27				
4	74	63	55	49	67	58	51	46	48	43	39	40	36	33	31	29	27	23				
5	67	56	48	42	61	52	45	39	43	38	34	36	32	29	28	26	23	20				
6	62	50	42	37	57	46	39	34	39	34	30	32	28	25	26	23	21	18				
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	21	18	16				
8	53	41	33	28	49	38	31	27	32	27	23	27	23	20	22	19	16	14				
9	50	37	30	25	45	35	28	24	29	24	21	25	21	18	20	17	15	13				
10	46	34	27	22	42	32	25	21	27	22	19	23	19	16	18	16	13	11				

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



TEST NUMBER: P855373

CATALOG NUMBER: SQ2-PH1-075U-050D-840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.8	1.7
10°-20°	283.5	4.6
20°-30°	415.7	6.7
30°-40°	503.4	8.1
40°-50°	495.0	8.0
50°-60°	430.9	7.0
60°-70°	299.6	4.8
70°-80°	142.0	2.3
80°-90°	31.9	0.5
90°-100°	212.8	3.4
100°-110°	705.6	11.4
110°-120°	700.3	11.3
120°-130°	570.4	9.2
130°-140°	463.6	7.5
140°-150°	360.0	5.8
150°-160°	259.4	4.2
160°-170°	158.8	2.6
170°-180°	53.7	0.9
0°-30°	806.9	13.0
0°-40°	1310.3	21.2
0°-60°	2236.3	36.1
0°-90°	2709.8	43.7
90°-120°	1618.8	26.1
90°-150°	3012.8	48.6
90°-180°	3485.0	56.3
0°-180°	6194.5	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	5	5	2
95°	30	90	386	138	92	35
105°	124	176	706	1332	1246	130
115°	220	264	569	1184	1384	218
125°	308	342	558	930	1096	273
135°	368	406	553	798	901	285
145°	428	460	552	687	752	268
155°	488	505	556	614	636	225
165°	536	542	558	580	586	151
175°	560	560	562	565	564	53
180°	563	563	563	563	563	

TEST NUMBER: P855373

CATALOG NUMBER: SQ2-PH1-075U-050D-840-UNV-STD-W-4

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	5.6	5.6
90°	0.0	1.2	3.5	4.7	4.7
92.5°	9.3	36.0	106.1	34.4	28.9
95°	30.3	89.5	385.7	137.6	92.1
97.5°	55.7	117.7	673.3	392.6	248.2
100°	73.4	132.6	779.5	669.5	444.0
102.5°	93.0	150.5	773.0	1023.2	773.0
105°	123.5	176.0	706.1	1332.3	1245.7
107.5°	154.8	201.5	642.0	1363.6	1429.5
110°	172.5	219.2	609.4	1332.6	1465.8



TEST NUMBER: P855373

CATALOG NUMBER: SQ2-PH1-075U-050D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	191.1	236.9	589.8	1277.5	1447.2
115°	220.3	263.5	568.6	1183.8	1384.4
117.5°	249.2	287.6	560.9	1094.3	1304.7
120°	266.9	304.4	558.1	1038.3	1242.2
122.5°	282.7	319.4	558.1	992.2	1180.7
125°	307.7	341.8	558.1	930.1	1096.5
127.5°	328.2	361.6	556.7	883.3	1025.4
130°	340.3	375.6	555.8	855.9	983.5
132.5°	351.5	387.7	554.8	833.3	948.1
135°	368.3	405.8	553.4	798.2	900.7
137.5°	386.4	422.6	552.1	764.4	854.8
140°	398.6	433.9	551.1	741.8	825.0
142.5°	409.8	444.1	552.1	719.3	793.3
145°	427.7	459.5	552.3	686.7	751.6
147.5°	447.0	473.6	552.5	659.0	707.3
150°	459.2	483.1	553.4	643.0	684.0
152.5°	470.2	493.3	554.4	629.8	662.5
155°	488.2	505.3	555.8	613.5	636.2
157.5°	505.7	519.0	557.2	601.9	618.0
160°	515.0	526.4	558.1	593.4	605.9
162.5°	524.3	533.1	558.1	587.7	597.5
165°	536.0	541.7	558.1	580.4	586.1
167.5°	546.7	549.7	559.3	573.8	576.8
170°	552.3	553.4	559.3	571.0	572.1
172.5°	556.0	557.2	560.2	568.1	568.4
175°	560.4	560.4	561.6	565.1	563.9
177.5°	562.8	562.8	561.8	563.7	561.8
180°	562.8	562.8	562.8	562.8	562.8



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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	17.09	17.89	18.10	18.91	20.27	15.76	16.56	16.77	17.58	18.94
	3H	19.11	19.83	20.13	20.86	22.23	16.79	17.51	17.81	18.54	19.92
	4H	19.84	20.52	20.87	21.55	22.93	17.00	17.68	18.04	18.71	20.10
	6H	20.32	20.95	21.36	21.98	23.38	17.14	17.77	18.19	18.80	20.20
	8H	20.44	21.04	21.49	22.09	23.48	17.17	17.77	18.22	18.82	20.21
	12H	20.49	21.05	21.54	22.10	23.51	17.17	17.74	18.22	18.78	20.20
4H	2H	17.46	18.14	18.50	19.17	20.55	16.40	17.07	17.44	18.11	19.49
	3H	19.56	20.12	20.61	21.18	22.58	17.57	18.13	18.62	19.19	20.59
	4H	20.37	20.89	21.43	21.94	23.36	17.84	18.36	18.90	19.41	20.83
	6H	20.95	21.40	22.02	22.47	23.89	18.05	18.49	19.11	19.57	20.98
	8H	21.12	21.53	22.19	22.60	24.03	18.10	18.52	19.17	19.58	21.02
	12H	21.19	21.56	22.27	22.64	24.08	18.11	18.48	19.19	19.56	21.00
8H	4H	20.38	20.80	21.45	21.86	23.30	18.05	18.47	19.12	19.53	20.97
	6H	21.03	21.37	22.12	22.48	23.91	18.32	18.67	19.41	19.77	21.20
	8H	21.26	21.56	22.35	22.65	24.10	18.43	18.73	19.52	19.82	21.27
	12H	21.37	21.63	22.47	22.72	24.21	18.47	18.73	19.57	19.82	21.31
12H	4H	20.33	20.71	21.42	21.79	23.22	18.05	18.42	19.13	19.50	20.94
	6H	21.01	21.31	22.10	22.40	23.85	18.35	18.65	19.45	19.75	21.19
	8H	21.24	21.50	22.34	22.59	24.08	18.47	18.73	19.57	19.82	21.31