

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: P854041

Luminaire Tested: SQ2-PH1-100U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854041
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-100U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

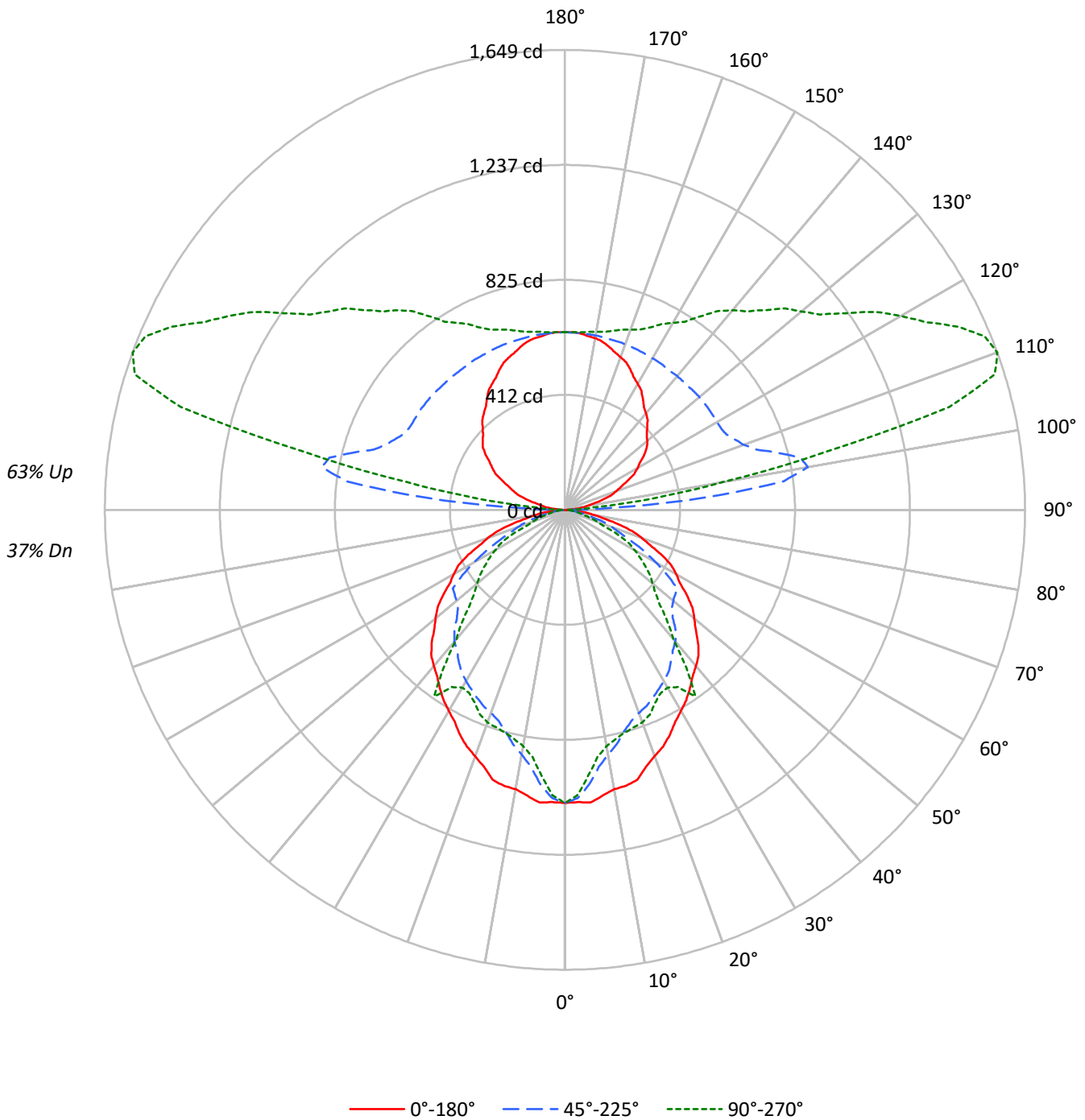
Lumens per Lamp: N/A
Luminaire Lumens: 6289.2 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.4
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: P854041

CATALOG NUMBER: SQ2-PH1-100U-050D-935-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854041

CATALOG NUMBER: SQ2-PH1-100U-050D-935-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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	37				37
1	95	91	87	84	86	83	79	77	67	65	63	53	51	50	39	38	38	32				32
2	87	79	74	69	78	72	67	63	59	55	52	46	44	42	35	33	32	27				27
3	79	70	63	57	71	64	58	53	52	47	44	41	38	35	31	29	27	23				23
4	72	62	54	48	65	56	50	45	46	41	37	36	33	30	28	25	23	19				19
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17				17
6	61	49	41	36	55	45	38	33	37	32	28	29	26	23	22	20	18	15				15
7	56	44	37	31	51	41	34	29	33	28	25	27	23	20	21	18	16	13				13
8	52	40	33	27	47	37	30	26	30	25	22	24	21	18	19	16	14	12				12
9	49	37	29	24	44	34	27	23	28	23	19	22	19	16	17	15	13	11				11
10	45	34	26	22	41	31	25	20	26	21	17	21	17	15	16	14	12	10				10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16969	16969	16969
5°	17067	16045	15511
10°	16674	14608	14100
15°	16749	13740	13824
20°	16151	13316	13935
25°	15855	13254	13611
30°	15511	13218	13722
35°	15394	13068	16084
40°	15407	12983	12752
45°	15413	12490	10983
50°	15197	12735	10299
55°	15004	13821	9880
60°	14854	12109	9268
65°	14594	9819	8061
70°	13785	8356	5759
75°	12289	6301	4367
80°	10042	4091	4091
85°	6299	3705	2779

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15413 cd/sqm



TEST NUMBER: P854041

CATALOG NUMBER: SQ2-PH1-100U-050D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.5	1.5
10°-20°	243.3	3.9
20°-30°	356.7	5.7
30°-40°	431.9	6.9
40°-50°	424.8	6.8
50°-60°	369.8	5.9
60°-70°	257.1	4.1
70°-80°	121.9	1.9
80°-90°	28.0	0.4
90°-100°	266.0	4.2
100°-110°	804.4	12.8
110°-120°	785.2	12.5
120°-130°	641.7	10.2
130°-140°	523.8	8.3
140°-150°	407.7	6.5
150°-160°	293.9	4.7
160°-170°	179.9	2.9
170°-180°	60.8	1.0
0°-30°	692.4	11.0
0°-40°	1124.4	17.9
0°-60°	1918.9	30.5
0°-90°	2325.9	37.0
90°-120°	1855.6	29.5
90°-150°	3428.7	54.5
90°-180°	3963.0	63.0
0°-180°	6289.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1053	1052	990	959	957	99
15°	1002	892	822	816	827	279
25°	890	757	744	767	764	409
35°	781	631	663	720	816	489
45°	675	500	547	566	481	519
55°	533	389	491	354	351	476
65°	382	268	257	211	211	375
75°	197	136	101	72	70	209
85°	34	22	20	16	15	46
90°	0	2	12	7	6	3
95°	33	104	502	185	117	39
105°	140	197	790	1500	1426	147
115°	249	297	639	1322	1553	246
125°	348	386	630	1044	1229	309
135°	417	461	626	900	1013	323
145°	487	523	626	774	847	305
155°	555	573	630	694	721	255
165°	607	614	633	657	665	171
175°	635	635	636	641	639	60
180°	637	637	637	637	637	



TEST NUMBER: P854041

CATALOG NUMBER: SQ2-PH1-100U-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1051.0	1051.0	1051.0	1051.0	1051.0
2.5°	1048.6	1059.6	1035.0	1025.4	1023.8
5°	1053.0	1052.0	990.0	959.0	957.0
7.5°	1033.8	1003.5	929.4	895.2	893.6
10°	1017.0	971.1	891.0	860.0	860.0
12.5°	1013.0	940.5	859.8	836.9	841.6
15°	1002.0	892.5	822.0	816.3	827.0
17.5°	965.6	847.7	792.6	805.7	818.2
20°	940.0	823.7	775.0	799.3	811.0
22.5°	918.4	800.5	762.2	788.7	795.0
25°	890.0	757.0	744.0	766.9	764.0
27.5°	856.0	717.2	725.8	739.8	741.6
30°	832.0	693.2	709.0	723.3	736.0
32.5°	808.8	665.3	690.6	724.5	753.6
35°	781.0	631.4	663.0	720.2	816.0
37.5°	751.8	591.4	635.2	683.3	713.8
40°	731.0	562.8	616.0	675.4	605.0
42.5°	708.6	540.4	587.2	663.9	545.0
45°	675.0	500.0	547.0	566.1	481.0
47.5°	635.4	468.6	519.8	472.0	438.8
50°	605.0	447.6	507.0	431.5	410.0
52.5°	575.4	425.8	498.2	398.1	383.6
55°	533.0	389.3	491.0	353.9	351.0
57.5°	488.0	352.1	434.2	315.5	320.6
60°	460.0	328.0	375.0	292.9	287.0
62.5°	430.4	304.7	319.8	264.1	258.2
65°	382.0	267.6	257.0	211.0	211.0
67.5°	328.8	229.1	208.2	172.7	149.2
70°	292.0	204.0	177.0	137.6	122.0
72.5°	252.8	177.3	145.0	112.8	94.8
75°	197.0	136.4	101.0	72.0	70.0
77.5°	142.4	98.2	68.0	53.4	53.6
80°	108.0	74.8	44.0	43.0	44.0
82.5°	76.0	51.4	32.8	34.2	34.4
85°	34.0	22.3	20.0	16.0	15.0
87.5°	7.2	6.8	6.4	5.4	5.2
90°	0.0	2.0	12.0	7.0	6.0
92.5°	11.2	45.2	162.4	53.8	38.8
95°	33.0	104.3	501.9	185.4	117.0
97.5°	63.8	132.8	791.0	523.4	318.7
100°	83.0	150.4	883.8	854.4	573.8
102.5°	104.6	169.7	864.6	1198.4	955.3
105°	140.0	196.7	789.8	1499.9	1425.6
107.5°	173.6	227.7	717.8	1529.7	1615.8
110°	195.9	247.8	681.8	1492.2	1648.6



TEST NUMBER: P854041

CATALOG NUMBER: SQ2-PH1-100U-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	217.5	267.8	660.2	1429.1	1627.0
115°	248.9	296.8	638.8	1321.9	1552.6
117.5°	280.1	325.5	631.2	1221.4	1457.6
120°	300.9	343.9	628.8	1162.8	1389.6
122.5°	320.1	360.8	628.8	1111.3	1320.8
125°	347.9	386.0	629.8	1043.9	1228.7
127.5°	370.5	410.0	628.8	993.1	1150.7
130°	384.9	426.0	628.8	964.0	1106.7
132.5°	397.7	439.5	628.0	937.3	1069.1
135°	416.9	460.9	625.8	900.3	1012.7
137.5°	438.3	480.1	625.8	860.7	964.9
140°	451.9	492.9	625.8	835.0	933.8
142.5°	465.5	505.0	625.0	811.5	897.8
145°	486.9	523.0	625.8	774.4	846.8
147.5°	508.3	539.0	627.0	743.9	799.4
150°	521.9	550.2	627.8	726.9	773.8
152.5°	534.7	559.9	628.6	712.3	750.6
155°	554.9	573.4	629.8	694.4	720.8
157.5°	572.4	587.5	631.0	681.2	699.6
160°	582.8	595.6	631.8	673.1	686.8
162.5°	593.2	602.8	632.6	665.9	677.2
165°	606.8	613.7	632.8	657.0	664.8
167.5°	618.4	622.0	634.0	650.1	653.4
170°	624.8	626.8	634.8	646.8	647.8
172.5°	628.8	630.0	634.8	643.6	643.8
175°	634.8	634.8	635.8	640.8	638.8
177.5°	637.6	636.8	636.0	638.4	636.8
180°	636.8	636.8	636.8	636.8	636.8



TEST NUMBER: P854041

CATALOG NUMBER: SQ2-PH1-100U-050D-935-UNV-STD-W-4

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	15.82	16.57	16.89	17.64	19.09	14.50	15.25	15.56	16.31	17.76
	3H	17.84	18.51	18.91	19.58	21.05	15.52	16.19	16.59	17.27	18.73
	4H	18.57	19.20	19.65	20.28	21.75	15.73	16.37	16.81	17.44	18.91
	6H	19.05	19.63	20.14	20.71	22.19	15.87	16.45	16.96	17.53	19.02
	8H	19.17	19.72	20.26	20.82	22.30	15.90	16.45	16.99	17.55	19.03
	12H	19.21	19.74	20.31	20.82	22.33	15.89	16.42	16.99	17.51	19.01
4H	2H	16.19	16.82	17.28	17.90	19.37	15.12	15.76	16.21	16.84	18.31
	3H	18.28	18.81	19.38	19.91	21.40	16.29	16.82	17.39	17.92	19.41
	4H	19.09	19.58	20.19	20.67	22.17	16.56	17.05	17.67	18.14	19.65
	6H	19.67	20.09	20.78	21.20	22.70	16.77	17.18	17.88	18.30	19.79
	8H	19.84	20.23	20.95	21.33	22.85	16.82	17.21	17.93	18.32	19.83
	12H	19.90	20.25	21.03	21.37	22.89	16.82	17.17	17.95	18.29	19.81
8H	4H	19.10	19.49	20.21	20.60	22.11	16.77	17.16	17.88	18.27	19.78
	6H	19.75	20.07	20.88	21.22	22.73	17.04	17.36	18.17	18.51	20.02
	8H	19.97	20.25	21.11	21.38	22.91	17.14	17.42	18.28	18.55	20.08
	12H	20.08	20.33	21.22	21.45	23.02	17.18	17.43	18.32	18.55	20.12
12H	4H	19.05	19.40	20.17	20.52	22.04	16.76	17.11	17.89	18.23	19.75
	6H	19.72	20.00	20.86	21.13	22.66	17.07	17.35	18.21	18.48	20.01
	8H	19.95	20.19	21.09	21.32	22.89	17.18	17.42	18.32	18.55	20.12