

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: P855157

Luminaire Tested: SQ2-PH1-100U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855157
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-075D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

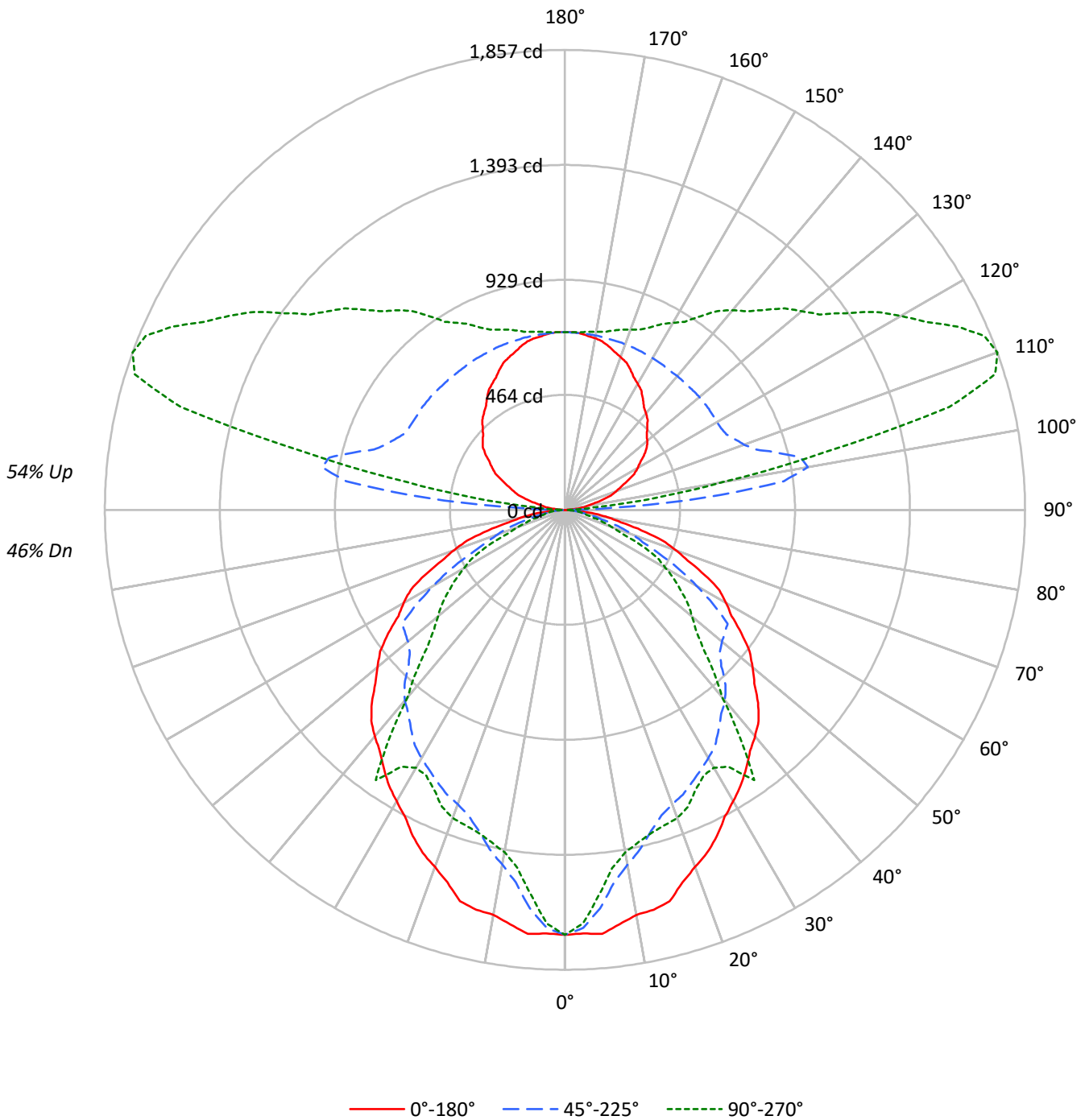
Lumens per Lamp: N/A
Luminaire Lumens: 8261.2 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 59.3
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: P855157

CATALOG NUMBER: SQ2-PH1-100U-075D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855157

CATALOG NUMBER: SQ2-PH1-100U-075D-835-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20				
RC	80					70					50					30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46		
1	97	93	89	86	89	85	82	79	71	69	67	59	57	55	47	46	45	39		
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	41	39	38	33		
3	81	71	64	59	74	66	60	55	55	51	47	46	42	39	37	34	32	28		
4	74	63	56	50	68	58	52	46	49	44	40	41	37	34	33	30	28	24		
5	68	56	48	42	62	52	45	40	44	39	35	37	33	29	30	27	24	21		
6	62	51	43	37	57	47	40	35	40	34	30	33	29	26	27	24	21	18		
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	24	21	19	16		
8	54	41	34	28	49	38	32	27	33	27	24	27	23	20	22	19	17	15		
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15	13		
10	47	35	27	23	43	32	26	21	28	22	19	23	19	16	19	16	14	12		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27703	27703	27703
5°	27861	26195	25321
10°	27220	23846	23017
15°	27343	22430	22567
20°	26366	21739	22747
25°	25883	21638	22219
30°	25322	21580	22400
35°	25131	21333	26256
40°	25151	21195	20818
45°	25160	20390	17931
50°	24810	20791	16814
55°	24493	22565	16130
60°	24251	19769	15129
65°	23828	16027	13161
70°	22504	13638	9404
75°	20062	10287	7130
80°	16392	6685	6685
85°	10282	6058	4520

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25160 cd/sqm



TEST NUMBER: P855157

CATALOG NUMBER: SQ2-PH1-100U-075D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.0	1.8
10°-20°	397.1	4.8
20°-30°	582.3	7.0
30°-40°	705.1	8.5
40°-50°	693.5	8.4
50°-60°	603.7	7.3
60°-70°	419.7	5.1
70°-80°	199.0	2.4
80°-90°	45.1	0.5
90°-100°	299.6	3.6
100°-110°	906.1	11.0
110°-120°	884.6	10.7
120°-130°	722.8	8.7
130°-140°	590.0	7.1
140°-150°	459.3	5.6
150°-160°	331.1	4.0
160°-170°	202.7	2.5
170°-180°	68.4	0.8
0°-30°	1130.4	13.7
0°-40°	1835.5	22.2
0°-60°	3132.6	37.9
0°-90°	3796.4	46.0
90°-120°	2090.4	25.3
90°-150°	3862.5	46.8
90°-180°	4465.0	54.0
0°-180°	8261.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1716	1716	1716	1716	1716	
5°	1719	1717	1616	1566	1562	162
15°	1636	1457	1342	1332	1350	456
25°	1453	1236	1215	1252	1247	668
35°	1275	1031	1082	1176	1332	799
45°	1102	816	893	924	785	847
55°	870	635	802	578	573	777
65°	624	437	420	344	344	613
75°	322	223	165	118	114	341
85°	56	36	33	26	24	74
90°	0	2	14	8	7	3
95°	37	118	565	209	132	44
105°	158	222	890	1690	1606	166
115°	280	334	720	1489	1749	277
125°	392	435	710	1176	1384	348
135°	470	519	705	1014	1141	364
145°	548	589	705	872	954	343
155°	625	646	710	782	812	288
165°	684	691	713	740	749	193
175°	715	715	716	722	720	68
180°	717	717	717	717	717	



TEST NUMBER: P855157

CATALOG NUMBER: SQ2-PH1-100U-075D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1715.8	1715.8	1715.8	1715.8	1715.8
2.5°	1711.9	1729.7	1689.7	1674.0	1671.4
5°	1719.0	1717.4	1616.2	1565.5	1562.3
7.5°	1687.7	1638.2	1517.2	1461.3	1458.8
10°	1660.3	1585.2	1454.5	1403.9	1403.9
12.5°	1653.7	1535.3	1403.6	1366.3	1374.0
15°	1635.8	1457.0	1341.9	1332.5	1350.1
17.5°	1576.4	1383.8	1293.9	1315.3	1335.7
20°	1534.5	1344.6	1265.2	1304.8	1323.9
22.5°	1499.3	1306.8	1244.3	1287.6	1297.9
25°	1452.9	1235.9	1214.6	1252.1	1247.2
27.5°	1397.4	1170.8	1184.9	1207.8	1210.7
30°	1358.2	1131.6	1157.5	1180.8	1201.5
32.5°	1320.4	1086.1	1127.4	1182.7	1230.2
35°	1275.0	1030.7	1082.3	1175.7	1332.1
37.5°	1227.3	965.5	1036.9	1115.5	1165.3
40°	1193.3	918.8	1005.6	1102.6	987.7
42.5°	1156.8	882.2	958.6	1083.8	889.7
45°	1101.9	816.3	893.0	924.1	785.3
47.5°	1037.3	765.0	848.6	770.7	716.3
50°	987.7	730.7	827.7	704.5	669.4
52.5°	939.4	695.2	813.3	649.8	626.3
55°	870.1	635.4	801.6	577.8	573.0
57.5°	796.7	574.8	708.9	515.1	523.4
60°	751.0	535.5	612.2	478.1	468.5
62.5°	702.7	497.4	522.0	431.1	421.5
65°	623.7	436.8	419.5	344.5	344.5
67.5°	536.7	373.9	339.8	281.9	243.5
70°	476.7	333.0	288.9	224.7	199.2
72.5°	412.7	289.5	236.7	184.1	154.8
75°	321.6	222.6	164.9	117.5	114.3
77.5°	232.4	160.4	111.0	87.1	87.5
80°	176.3	122.0	71.9	70.3	71.9
82.5°	124.0	83.9	53.5	55.8	56.1
85°	55.5	36.3	32.7	26.0	24.4
87.5°	11.8	10.9	9.3	8.1	7.9
90°	0.0	2.2	13.5	7.8	6.8
92.5°	12.6	50.9	182.9	60.7	43.7
95°	37.1	117.6	565.4	208.9	131.7
97.5°	71.9	149.6	891.1	589.6	359.1
100°	93.5	169.4	995.5	962.5	646.4
102.5°	117.8	191.1	973.9	1350.0	1076.2
105°	157.6	221.6	889.7	1689.7	1605.9
107.5°	195.6	256.5	808.6	1723.3	1820.2
110°	220.8	279.1	768.1	1681.0	1857.1



TEST NUMBER: P855157

CATALOG NUMBER: SQ2-PH1-100U-075D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	245.1	301.7	743.7	1609.9	1832.8
115°	280.4	334.4	719.6	1489.2	1749.0
117.5°	315.5	366.7	711.1	1376.0	1642.0
120°	338.9	387.5	708.4	1309.9	1565.4
122.5°	360.7	406.4	708.4	1251.8	1487.9
125°	391.9	434.9	709.6	1176.0	1384.1
127.5°	417.4	461.8	708.4	1118.8	1296.2
130°	433.5	479.8	708.4	1085.9	1246.8
132.5°	448.0	495.1	707.5	1056.0	1204.3
135°	469.6	519.2	705.0	1014.2	1140.8
137.5°	493.7	540.8	705.0	969.6	1087.0
140°	509.0	555.3	705.0	940.6	1051.9
142.5°	524.4	568.9	704.1	914.2	1011.4
145°	548.5	589.3	705.0	872.4	953.9
147.5°	572.5	607.1	706.4	838.0	900.5
150°	587.9	619.8	707.3	818.9	871.7
152.5°	602.3	630.7	708.2	802.3	845.6
155°	625.0	646.0	709.6	782.2	812.0
157.5°	644.8	661.8	710.9	767.4	788.1
160°	656.6	670.9	711.8	758.3	773.7
162.5°	668.2	679.1	712.6	750.1	762.9
165°	683.6	691.3	712.8	740.1	748.9
167.5°	696.7	700.6	714.2	732.3	736.0
170°	703.9	706.0	715.1	728.7	729.8
172.5°	708.4	709.7	715.1	725.1	725.3
175°	715.1	715.1	716.2	721.9	719.6
177.5°	718.3	717.4	716.5	719.2	717.4
180°	717.4	717.4	717.4	717.4	717.4



TEST NUMBER: P855157

CATALOG NUMBER: SQ2-PH1-100U-075D-835-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	18.48	19.30	19.47	20.30	21.63	17.15	17.97	18.15	18.98	20.31
	3H	20.50	21.24	21.51	22.25	23.60	18.18	18.92	19.19	19.93	21.28
	4H	21.23	21.93	22.25	22.94	24.30	18.40	19.09	19.41	20.11	21.46
	6H	21.71	22.35	22.74	23.37	24.74	18.54	19.18	19.57	20.20	21.57
	8H	21.84	22.45	22.87	23.48	24.85	18.57	19.18	19.60	20.21	21.58
	12H	21.88	22.46	22.92	23.49	24.88	18.57	19.14	19.60	20.17	21.56
4H	2H	18.85	19.55	19.87	20.56	21.92	17.79	18.48	18.81	19.50	20.86
	3H	20.95	21.53	21.98	22.57	23.95	18.97	19.54	20.00	20.59	21.96
	4H	21.77	22.29	22.81	23.33	24.72	19.24	19.77	20.28	20.80	22.20
	6H	22.35	22.80	23.40	23.86	25.25	19.45	19.90	20.49	20.96	22.35
	8H	22.52	22.94	23.57	23.99	25.40	19.50	19.92	20.55	20.98	22.38
	12H	22.58	22.97	23.65	24.03	25.44	19.51	19.89	20.57	20.96	22.37
8H	4H	21.78	22.20	22.83	23.26	24.66	19.45	19.88	20.50	20.93	22.33
	6H	22.43	22.78	23.50	23.87	25.28	19.72	20.07	20.80	21.17	22.57
	8H	22.66	22.96	23.74	24.04	25.46	19.83	20.13	20.91	21.21	22.63
	12H	22.77	23.04	23.85	24.11	25.57	19.87	20.14	20.95	21.21	22.67
12H	4H	21.73	22.11	22.80	23.18	24.59	19.45	19.83	20.51	20.90	22.31
	6H	22.40	22.71	23.48	23.79	25.21	19.75	20.06	20.83	21.14	22.56
	8H	22.63	22.90	23.72	23.98	25.44	19.87	20.14	20.95	21.21	22.67