

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: P854878

Luminaire Tested: SQ2-PW1-050U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854878
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-050U-075D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

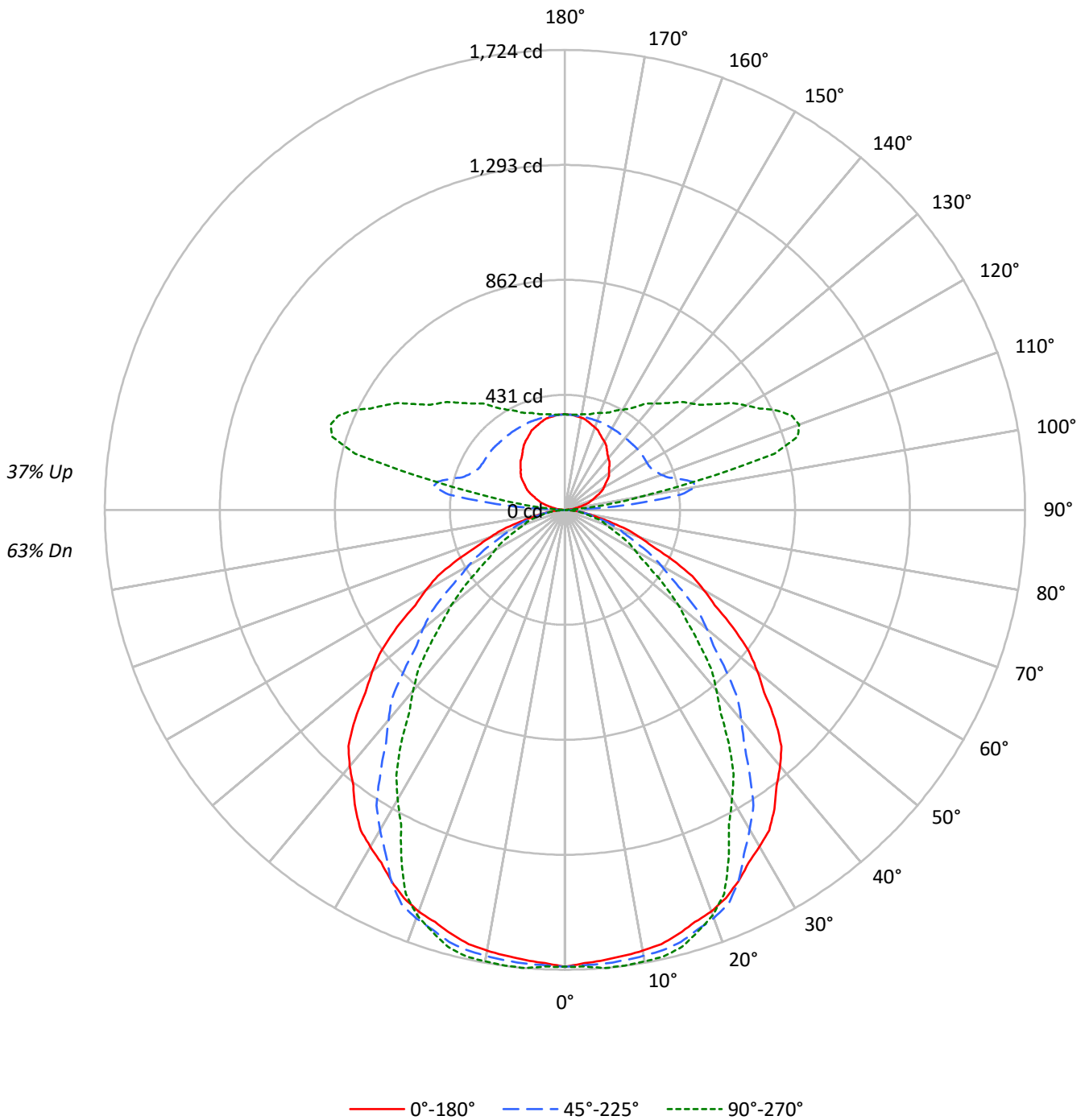
Lumens per Lamp: N/A
Luminaire Lumens: 6022.7 lumens
Efficiency: N/A
Efficacy: 145.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 41.5
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: P854878

CATALOG NUMBER: SQ2-PW1-050U-075D-830-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854878

CATALOG NUMBER: SQ2-PW1-050U-075D-830-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20									20
RC	80									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	110	110	110	110	103	103	103	103	91	91	91	79	79	79	68	68	68	63									63																			
1	101	97	94	90	95	92	88	85	81	78	76	71	69	67	61	60	59	55									55																			
2	93	86	80	75	87	81	76	71	72	68	64	63	60	57	55	53	51	47									47																			
3	85	76	69	63	80	72	66	60	64	59	55	56	53	49	49	46	44	41									41																			
4	78	68	60	54	73	64	57	52	57	52	47	51	46	43	45	41	39	35									35																			
5	72	61	53	47	68	58	50	45	52	46	41	46	41	38	40	37	34	31									31																			
6	67	55	47	41	63	52	45	40	47	41	36	42	37	33	37	33	30	28									28																			
7	62	50	42	37	58	47	40	35	43	37	32	38	33	30	34	30	27	25									25																			
8	58	46	38	33	54	43	36	31	39	33	29	35	30	27	31	27	25	22									22																			
9	54	42	34	29	51	40	33	28	36	30	26	32	28	24	29	25	22	20									20																			
10	50	38	31	27	48	37	30	26	33	28	24	30	25	22	27	23	20	19									19																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27651	27651	27651
5°	27465	27678	27942
10°	27516	27837	28184
15°	27510	28027	28354
20°	27520	27996	27801
25°	27371	27401	25832
30°	27186	25818	23353
35°	26972	23759	21088
40°	26435	21657	18632
45°	25398	19479	16276
50°	23639	17412	13931
55°	21627	15381	11296
60°	19385	13378	9746
65°	16951	11530	8661
70°	13860	10244	7851
75°	10786	8852	7224
80°	8043	7578	6369
85°	5446	5743	3631

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25398 cd/sqm



TEST NUMBER: P854878

CATALOG NUMBER: SQ2-PW1-050U-075D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.1	2.7
10°-20°	472.5	7.8
20°-30°	695.3	11.5
30°-40°	760.2	12.6
40°-50°	682.0	11.3
50°-60°	508.8	8.4
60°-70°	321.5	5.3
70°-80°	159.3	2.6
80°-90°	37.7	0.6
90°-100°	142.5	2.4
100°-110°	452.1	7.5
110°-120°	443.3	7.4
120°-130°	360.7	6.0
130°-140°	294.1	4.9
140°-150°	229.3	3.8
150°-160°	165.2	2.7
160°-170°	100.9	1.7
170°-180°	34.1	0.6
0°-30°	1330.9	22.1
0°-40°	2091.2	34.7
0°-60°	3281.9	54.5
0°-90°	3800.4	63.1
90°-120°	1037.9	17.2
90°-150°	1922.1	31.9
90°-180°	2222.0	36.9
0°-180°	6022.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1713	1713	1713	1713	1713	
5°	1695	1722	1708	1710	1724	161
15°	1646	1678	1677	1688	1696	465
25°	1536	1570	1538	1474	1450	708
35°	1368	1354	1205	1100	1070	853
45°	1112	1023	853	746	713	853
55°	768	695	546	428	401	686
65°	444	407	302	243	227	440
75°	173	186	142	119	116	190
85°	29	37	31	21	20	37
90°	0	1	3	3	3	2
95°	19	58	259	96	62	22
105°	79	111	446	849	814	83
115°	141	167	360	748	880	139
125°	195	218	354	586	691	173
135°	235	258	352	504	568	182
145°	275	296	352	435	474	172
155°	313	324	353	389	404	144
165°	341	344	354	368	371	96
175°	357	356	357	359	358	34
180°	358	358	358	358	358	



TEST NUMBER: P854878

CATALOG NUMBER: SQ2-PW1-050U-075D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1712.6	1712.6	1712.6	1712.6	1712.6
2.5°	1700.8	1722.5	1708.7	1710.1	1713.9
5°	1694.6	1721.7	1707.7	1709.6	1724.0
7.5°	1686.1	1713.6	1703.1	1709.0	1723.0
10°	1678.3	1707.0	1697.9	1706.4	1719.1
12.5°	1667.9	1697.9	1691.4	1701.2	1713.9
15°	1645.8	1677.6	1676.7	1688.3	1696.3
17.5°	1620.0	1651.9	1650.3	1653.3	1657.2
20°	1601.7	1633.6	1629.4	1618.0	1618.0
22.5°	1575.6	1610.0	1599.4	1568.2	1558.0
25°	1536.4	1569.9	1538.1	1473.9	1450.0
27.5°	1490.8	1517.9	1453.9	1362.8	1329.6
30°	1458.2	1478.9	1384.8	1284.5	1252.6
32.5°	1424.3	1432.2	1314.3	1210.1	1175.6
35°	1368.4	1354.1	1205.4	1100.2	1069.9
37.5°	1302.5	1259.8	1100.7	990.6	957.1
40°	1254.2	1193.6	1027.5	917.5	884.0
42.5°	1200.7	1124.9	958.4	848.3	813.6
45°	1112.3	1023.1	853.1	746.2	712.8
47.5°	1012.8	924.2	754.5	651.1	622.4
50°	941.1	855.0	693.2	589.6	554.6
52.5°	868.0	790.9	633.2	526.8	478.8
55°	768.3	694.9	546.4	428.4	401.3
57.5°	665.5	602.0	467.7	360.6	338.3
60°	600.3	544.4	414.3	324.0	301.8
62.5°	537.6	488.1	362.1	290.2	271.7
65°	443.7	406.9	301.8	242.6	226.7
67.5°	352.3	331.8	250.9	199.1	188.6
70°	293.6	287.2	217.0	174.3	166.3
72.5°	242.7	245.2	184.3	150.9	145.5
75°	172.9	185.7	141.9	118.9	115.8
77.5°	117.8	136.9	105.0	88.0	85.5
80°	86.5	105.6	81.5	68.5	68.5
82.5°	60.4	75.6	58.1	51.6	51.6
85°	29.4	37.3	31.0	21.1	19.6
87.5°	7.8	11.9	5.9	4.6	4.6
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.3	25.0	79.9	26.6	18.7
95°	19.1	57.7	258.8	96.0	61.8
97.5°	35.6	74.7	438.5	274.0	168.1
100°	47.3	84.7	499.6	455.5	296.0
102.5°	59.9	95.5	488.9	669.0	512.1
105°	78.8	110.7	445.7	848.9	813.6
107.5°	97.7	127.2	404.4	867.7	915.1
110°	110.2	138.8	383.7	846.1	934.0



TEST NUMBER: P854878

CATALOG NUMBER: SQ2-PW1-050U-075D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	122.9	149.7	372.1	808.7	920.6
115°	140.7	167.1	360.1	748.0	880.1
117.5°	158.0	183.1	355.4	689.5	822.7
120°	168.8	193.0	354.5	653.4	782.2
122.5°	179.7	203.0	354.5	624.3	744.3
125°	194.7	217.8	354.5	586.5	690.9
127.5°	207.9	230.2	354.5	557.1	646.2
130°	216.1	239.1	354.5	539.8	620.0
132.5°	224.2	247.3	353.6	526.1	598.4
135°	235.2	258.4	352.2	504.5	568.4
137.5°	246.0	270.2	352.0	483.9	540.9
140°	253.3	277.5	351.1	469.3	521.0
142.5°	262.2	285.5	352.0	454.9	503.0
145°	274.6	295.6	352.2	435.3	473.7
147.5°	287.0	304.8	352.4	418.0	449.4
150°	296.0	310.2	353.3	407.9	433.3
152.5°	303.1	315.7	353.3	399.8	420.7
155°	312.8	323.8	353.3	388.6	404.0
157.5°	323.3	330.7	354.5	381.7	392.3
160°	328.6	335.2	354.5	377.2	386.0
162.5°	334.0	338.9	354.5	373.6	379.7
165°	341.0	344.3	354.5	368.0	371.4
167.5°	347.6	348.4	355.6	364.3	367.1
170°	351.1	351.1	355.6	362.4	363.5
172.5°	352.9	353.8	355.6	360.6	360.8
175°	356.7	355.7	356.7	359.0	357.8
177.5°	357.8	356.9	356.9	358.8	356.9
180°	357.8	357.8	357.8	357.8	357.8



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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	19.73	20.67	20.58	21.53	22.61	16.22	17.16	17.06	18.02	19.10
	3H	21.06	21.90	21.92	22.77	23.87	17.43	18.27	18.29	19.14	20.24
	4H	21.44	22.23	22.31	23.11	24.22	17.88	18.67	18.76	19.55	20.66
	6H	21.65	22.38	22.53	23.26	24.39	18.20	18.93	19.09	19.82	20.94
	8H	21.68	22.38	22.58	23.28	24.40	18.28	18.97	19.17	19.87	21.00
	12H	21.68	22.34	22.58	23.24	24.39	18.29	18.95	19.19	19.85	21.00
4H	2H	19.85	20.64	20.73	21.52	22.63	16.91	17.71	17.79	18.58	19.69
	3H	21.40	22.06	22.29	22.97	24.09	18.31	18.96	19.20	19.87	21.00
	4H	21.91	22.51	22.81	23.41	24.57	18.86	19.45	19.76	20.36	21.51
	6H	22.25	22.76	23.16	23.69	24.85	19.26	19.78	20.18	20.71	21.86
	8H	22.33	22.81	23.25	23.73	24.90	19.37	19.85	20.29	20.77	21.94
	12H	22.35	22.78	23.28	23.72	24.89	19.40	19.83	20.33	20.77	21.94
8H	4H	21.96	22.44	22.87	23.36	24.53	19.19	19.67	20.11	20.59	21.76
	6H	22.39	22.79	23.34	23.76	24.92	19.70	20.09	20.64	21.06	22.23
	8H	22.54	22.89	23.49	23.85	25.03	19.86	20.21	20.81	21.17	22.35
	12H	22.61	22.92	23.57	23.87	25.10	19.92	20.23	20.88	21.18	22.42
12H	4H	21.92	22.35	22.85	23.29	24.47	19.21	19.64	20.14	20.58	21.75
	6H	22.39	22.74	23.34	23.69	24.88	19.76	20.11	20.72	21.07	22.26
	8H	22.55	22.86	23.51	23.81	25.04	19.95	20.26	20.91	21.21	22.44