

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: P855363

Luminaire Tested: SQ2-PH1-100U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855363
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-100D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

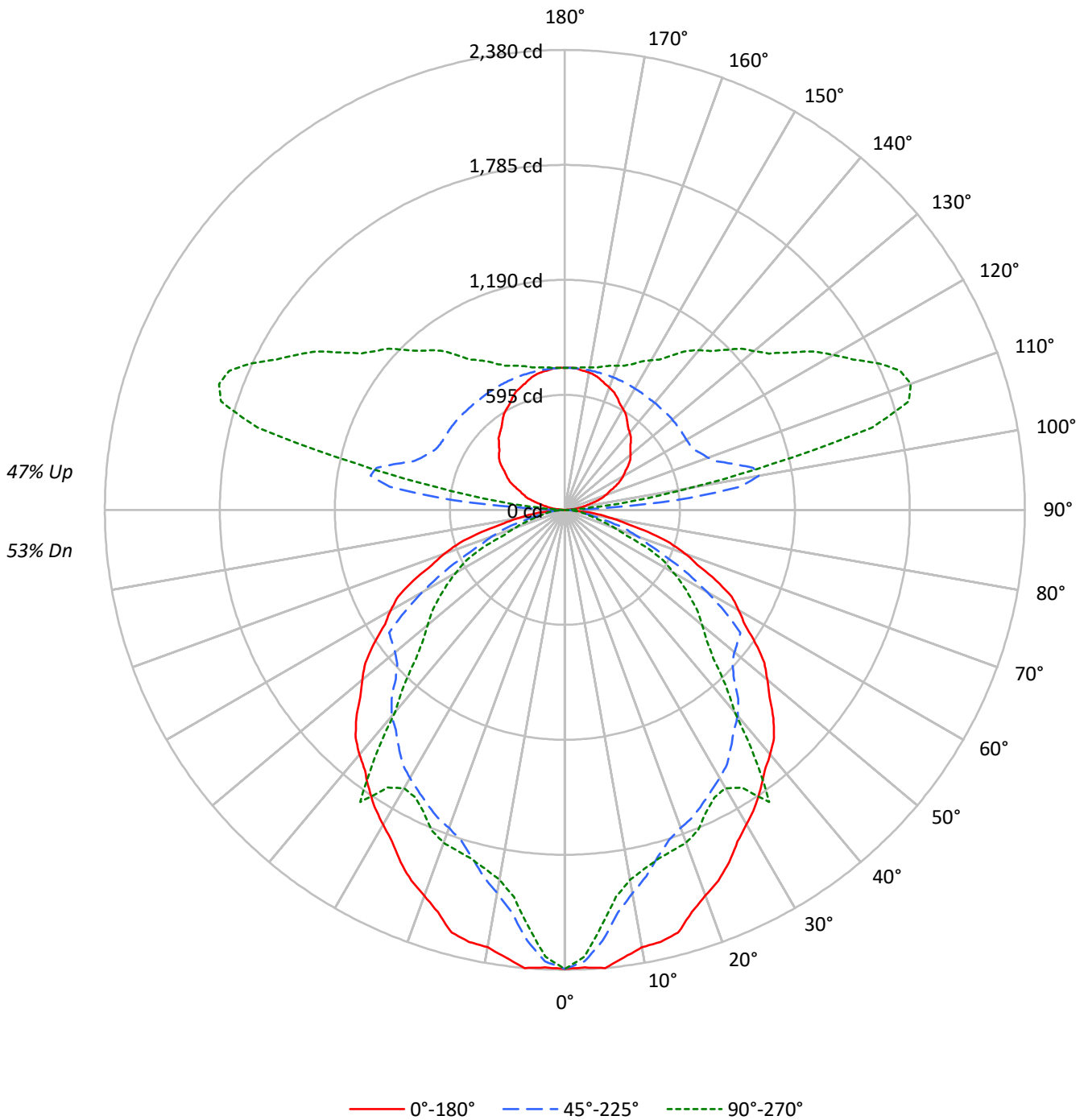
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9833.2 lumens
Efficiency: N/A
Efficacy: 140.1 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): 70.2
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

TEST NUMBER: P855363
CATALOG NUMBER: SQ2-PH1-100U-100D-840-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855363

CATALOG NUMBER: SQ2-PH1-100U-100D-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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53				53
1	99	95	91	87	91	88	85	82	75	73	71	64	62	60	53	52	51	46				46
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	38				38
3	82	73	66	60	76	68	61	56	58	53	49	50	46	43	41	39	37	33				33
4	75	65	57	51	70	60	53	48	52	47	42	44	40	37	37	34	32	28				28
5	69	58	49	43	64	54	47	41	46	41	36	40	35	32	33	30	28	24				24
6	64	52	44	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21				21
7	59	47	39	33	55	44	37	31	38	32	28	33	28	25	28	24	22	19				19
8	55	42	35	29	51	40	33	28	35	29	25	30	25	22	25	22	19	17				17
9	51	39	31	26	47	36	30	25	32	26	22	28	23	20	24	20	18	15				15
10	48	36	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16	14				14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38358	38358	38358
5°	38577	36269	35060
10°	37689	33019	31870
15°	37857	31057	31246
20°	36508	30100	31498
25°	35838	29959	30765
30°	35061	29880	31016
35°	34795	29538	36356
40°	34825	29347	28823
45°	34837	28232	24825
50°	34350	28788	23277
55°	33914	31240	22334
60°	33577	27370	20951
65°	32986	22197	18220
70°	31162	18888	13015
75°	27779	14242	9875
80°	22706	9242	9242
85°	14227	8373	6280

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 34837 cd/sqm



TEST NUMBER: P855363

CATALOG NUMBER: SQ2-PH1-100U-100D-840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.0	2.1
10°-20°	549.8	5.6
20°-30°	806.2	8.2
30°-40°	976.4	9.9
40°-50°	960.2	9.8
50°-60°	835.8	8.5
60°-70°	581.1	5.9
70°-80°	275.5	2.8
80°-90°	62.0	0.6
90°-100°	307.1	3.1
100°-110°	929.0	9.4
110°-120°	906.9	9.2
120°-130°	741.0	7.5
130°-140°	604.9	6.2
140°-150°	470.9	4.8
150°-160°	339.4	3.5
160°-170°	207.8	2.1
170°-180°	70.2	0.7
0°-30°	1565.1	15.9
0°-40°	2541.5	25.8
0°-60°	4337.4	44.1
0°-90°	5256.0	53.5
90°-120°	2143.0	21.8
90°-150°	3959.8	40.3
90°-180°	4577.0	46.5
0°-180°	9833.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2376	2376	2376	2376	2376	
5°	2380	2378	2238	2168	2163	224
15°	2265	2017	1858	1845	1869	631
25°	2012	1711	1682	1734	1727	925
35°	1765	1427	1499	1628	1844	1106
45°	1526	1130	1236	1280	1087	1173
55°	1205	880	1110	800	793	1076
65°	863	605	581	477	477	848
75°	445	308	228	163	158	472
85°	77	50	45	36	34	103
90°	0	2	14	8	7	4
95°	38	120	580	214	135	45
105°	162	227	912	1732	1646	170
115°	288	343	738	1527	1793	284
125°	402	446	727	1206	1419	357
135°	481	532	723	1040	1170	373
145°	562	604	723	894	978	352
155°	641	662	727	802	832	295
165°	701	709	731	759	768	197
175°	733	733	734	740	738	70
180°	736	736	736	736	736	



TEST NUMBER: P855363

CATALOG NUMBER: SQ2-PH1-100U-100D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2375.7	2375.7	2375.7	2375.7	2375.7
2.5°	2370.2	2395.0	2339.4	2317.7	2314.1
5°	2380.2	2378.0	2237.8	2167.6	2163.2
7.5°	2336.7	2268.2	2100.8	2023.4	2019.9
10°	2298.8	2194.9	2014.0	1943.9	1943.9
12.5°	2289.8	2125.8	1943.4	1891.7	1902.3
15°	2264.8	2017.3	1858.0	1845.1	1869.3
17.5°	2182.6	1916.0	1791.6	1821.2	1849.5
20°	2124.8	1861.7	1751.8	1806.6	1833.2
22.5°	2075.9	1809.4	1722.8	1782.8	1797.0
25°	2011.7	1711.2	1681.7	1733.5	1726.9
27.5°	1934.9	1621.1	1640.5	1672.4	1676.3
30°	1880.6	1566.8	1602.7	1634.9	1663.6
32.5°	1828.2	1503.7	1561.1	1637.5	1703.5
35°	1765.3	1427.2	1498.6	1627.8	1844.5
37.5°	1699.4	1336.8	1435.8	1544.5	1613.5
40°	1652.3	1272.2	1392.4	1526.7	1367.5
42.5°	1601.7	1221.6	1327.3	1500.7	1231.9
45°	1525.7	1130.1	1236.4	1279.5	1087.2
47.5°	1436.2	1059.2	1175.0	1067.0	991.9
50°	1367.5	1011.7	1146.1	975.3	926.7
52.5°	1300.6	962.5	1126.1	899.8	867.1
55°	1204.8	879.9	1109.8	800.0	793.4
57.5°	1103.1	795.9	981.5	713.2	724.6
60°	1039.8	741.4	847.6	661.9	648.8
62.5°	972.9	688.6	722.9	596.9	583.6
65°	863.4	604.8	581.0	476.9	476.9
67.5°	743.2	517.8	470.6	390.3	337.3
70°	660.1	461.1	400.1	311.2	275.7
72.5°	571.4	400.8	327.7	255.0	214.3
75°	445.3	308.2	228.3	162.7	158.3
77.5°	321.9	222.0	153.7	120.7	121.2
80°	244.2	169.0	99.4	97.2	99.4
82.5°	171.8	116.1	74.1	77.3	77.7
85°	76.8	50.3	45.2	36.1	33.9
87.5°	16.3	14.9	11.8	10.6	10.4
90°	0.0	2.2	13.9	8.0	6.9
92.5°	12.9	52.2	187.5	62.2	44.8
95°	38.1	120.5	579.6	214.1	135.1
97.5°	73.7	153.4	913.4	604.5	368.0
100°	95.8	173.8	1020.7	986.7	662.8
102.5°	120.7	195.9	998.5	1383.9	1103.3
105°	161.6	227.1	912.2	1732.3	1646.4
107.5°	200.4	262.9	828.9	1766.6	1866.0
110°	226.3	286.1	787.5	1723.3	1903.9



TEST NUMBER: P855363

CATALOG NUMBER: SQ2-PH1-100U-100D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	251.3	309.3	762.5	1650.4	1879.0
115°	287.5	342.7	737.8	1526.6	1793.1
117.5°	323.5	375.8	729.0	1410.6	1683.3
120°	347.5	397.2	726.2	1342.9	1604.9
122.5°	369.7	416.6	726.2	1283.3	1525.4
125°	401.8	445.8	727.3	1205.6	1419.0
127.5°	427.9	473.5	726.2	1146.9	1328.9
130°	444.5	491.9	726.2	1113.3	1278.1
132.5°	459.3	507.6	725.3	1082.5	1234.7
135°	481.4	532.2	722.8	1039.8	1169.6
137.5°	506.1	554.5	722.8	994.1	1114.4
140°	521.9	569.3	722.8	964.4	1078.3
142.5°	537.6	583.2	721.8	937.2	1036.7
145°	562.3	604.0	722.8	894.3	977.9
147.5°	587.0	622.4	724.2	859.0	923.2
150°	602.6	635.4	725.1	839.4	893.6
152.5°	617.4	646.6	725.9	822.5	866.8
155°	640.7	662.2	727.3	801.9	832.4
157.5°	661.1	678.5	728.7	786.8	808.0
160°	673.1	687.8	729.7	777.3	793.2
162.5°	685.1	696.2	730.6	769.0	782.1
165°	700.9	708.7	730.8	758.8	767.8
167.5°	714.2	718.2	732.2	750.8	754.6
170°	721.6	723.8	733.2	747.0	748.2
172.5°	726.2	727.6	733.2	743.3	743.5
175°	733.2	733.2	734.3	740.0	737.8
177.5°	736.4	735.5	734.6	737.2	735.5
180°	735.5	735.5	735.5	735.5	735.5



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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	20.31	21.20	21.24	22.14	23.36	18.99	19.87	19.91	20.82	22.04
	3H	22.34	23.13	23.28	24.09	25.33	20.02	20.81	20.96	21.77	23.01
	4H	23.07	23.82	24.03	24.78	26.03	20.24	20.99	21.19	21.94	23.20
	6H	23.56	24.25	24.52	25.21	26.48	20.38	21.07	21.35	22.04	23.30
	8H	23.68	24.34	24.66	25.32	26.59	20.41	21.07	21.39	22.05	23.32
	12H	23.73	24.35	24.71	25.33	26.62	20.41	21.04	21.39	22.01	23.30
4H	2H	20.69	21.44	21.65	22.40	23.65	19.63	20.38	20.59	21.34	22.59
	3H	22.80	23.42	23.77	24.41	25.68	20.81	21.44	21.78	22.42	23.69
	4H	23.62	24.18	24.60	25.17	26.46	21.09	21.66	22.07	22.64	23.93
	6H	24.20	24.69	25.19	25.70	26.99	21.30	21.79	22.29	22.79	24.08
	8H	24.37	24.83	25.37	25.83	27.13	21.36	21.81	22.35	22.81	24.12
	12H	24.44	24.85	25.45	25.87	27.18	21.36	21.78	22.38	22.79	24.10
8H	4H	23.64	24.09	24.63	25.09	26.40	21.31	21.76	22.30	22.76	24.07
	6H	24.29	24.66	25.31	25.71	27.01	21.58	21.96	22.60	23.00	24.30
	8H	24.51	24.85	25.54	25.87	27.20	21.68	22.01	22.71	23.04	24.36
	12H	24.63	24.92	25.66	25.94	27.31	21.73	22.02	22.76	23.04	24.41
12H	4H	23.59	24.00	24.60	25.02	26.33	21.30	21.72	22.32	22.73	24.04
	6H	24.26	24.59	25.29	25.62	26.94	21.61	21.94	22.64	22.97	24.29
	8H	24.50	24.79	25.53	25.81	27.18	21.73	22.02	22.76	23.04	24.41