

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: P855379

Luminaire Tested: SQ2-PH1-025U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855379
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-025U-100D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

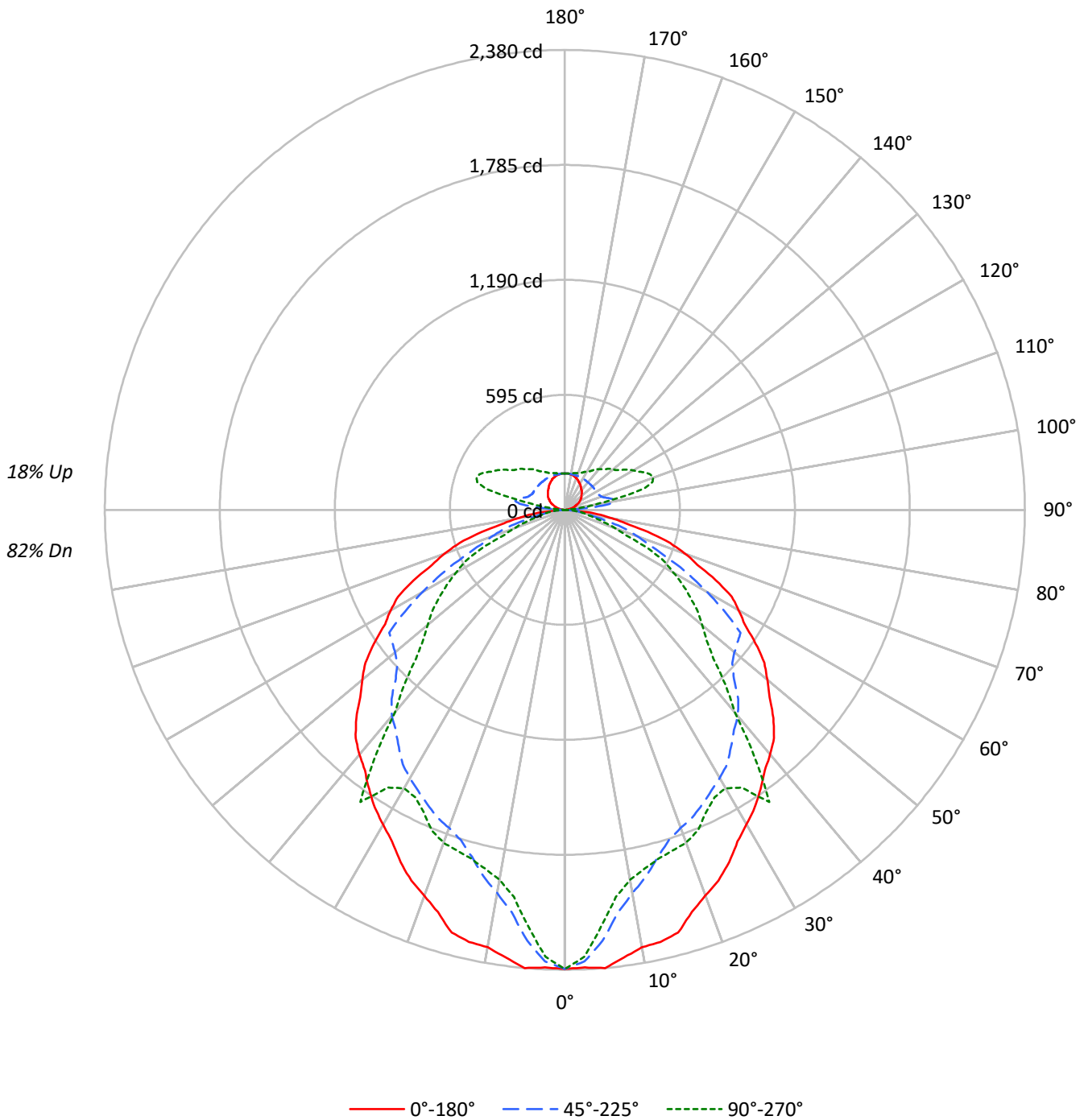
Lumens per Lamp: N/A
Luminaire Lumens: 6424.1 lumens
Efficiency: N/A
Efficacy: 142.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45
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

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Luminous Intensity Polar Plot





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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	0
RCR																		
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	82
1	105	101	97	93	101	97	93	90	89	87	84	82	80	78	76	74	73	70
2	96	88	82	77	92	85	79	75	79	74	70	73	69	66	67	64	62	59
3	88	78	70	64	84	75	68	63	70	64	59	64	60	56	60	56	53	50
4	81	69	61	55	77	67	59	53	62	56	51	58	52	48	54	49	46	43
5	74	62	53	47	71	60	52	46	56	49	44	52	46	42	48	44	40	37
6	68	56	47	41	65	54	46	40	50	44	39	47	41	37	44	39	35	33
7	63	51	42	36	61	49	41	36	46	39	34	43	37	33	40	35	31	29
8	59	46	38	32	57	45	37	32	42	35	31	39	34	29	37	32	28	26
9	55	42	35	29	53	41	34	29	39	32	28	36	31	27	34	29	25	24
10	52	39	31	26	50	38	31	26	36	29	25	34	28	24	32	27	23	21

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.0	3.3
10°-20°	549.8	8.6
20°-30°	806.2	12.5
30°-40°	976.4	15.2
40°-50°	960.2	14.9
50°-60°	835.8	13.0
60°-70°	581.1	9.0
70°-80°	275.5	4.3
80°-90°	61.2	1.0
90°-100°	76.2	1.2
100°-110°	237.1	3.7
110°-120°	231.9	3.6
120°-130°	189.3	2.9
130°-140°	154.9	2.4
140°-150°	120.9	1.9
150°-160°	87.2	1.4
160°-170°	53.3	0.8
170°-180°	18.0	0.3
0°-30°	1565.1	24.4
0°-40°	2541.5	39.6
0°-60°	4337.4	67.5
0°-90°	5255.2	81.8
90°-120°	545.2	8.5
90°-150°	1010.4	15.7
90°-180°	1169.0	18.2
0°-180°	6424.1	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	1	4	4	4	3
95°	10	31	140	52	34	12
105°	42	58	233	446	425	44
115°	74	88	190	391	458	73
125°	103	114	187	307	360	91
135°	124	137	186	265	298	96
145°	144	156	186	229	250	91
155°	165	171	187	206	213	76
165°	182	182	188	194	196	51
175°	188	188	188	190	188	18
180°	188	188	188	188	188	



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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	14.7	9.8	9.8	9.8
90°	0.0	1.2	3.5	3.5	3.5
92.5°	3.7	12.9	44.2	14.5	11.8
95°	10.4	30.8	139.8	51.6	33.6
97.5°	19.0	40.0	231.6	144.2	90.8
100°	25.4	44.6	261.2	244.3	162.9
102.5°	31.9	50.2	255.6	348.8	273.9
105°	41.6	58.5	233.4	445.5	425.3
107.5°	51.3	67.1	212.1	453.0	475.4
110°	57.8	73.5	201.0	442.4	486.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	64.2	79.1	195.6	423.3	479.1
115°	74.0	87.5	189.5	390.9	457.5
117.5°	83.4	95.8	186.9	360.0	428.2
120°	88.9	101.4	186.0	342.4	407.9
122.5°	94.5	107.0	186.9	327.5	387.5
125°	102.8	114.1	187.2	307.4	360.5
127.5°	109.5	121.1	187.2	292.4	337.6
130°	113.3	125.6	187.2	284.0	324.7
132.5°	117.8	130.3	186.2	276.5	314.5
135°	123.6	137.2	186.0	265.4	298.1
137.5°	130.3	142.8	186.0	254.2	284.0
140°	134.0	146.5	186.0	246.7	273.9
142.5°	138.7	150.2	186.0	239.3	263.6
145°	144.4	155.7	186.0	229.2	249.6
147.5°	151.4	161.1	187.2	219.9	236.0
150°	155.9	163.9	187.2	215.2	227.6
152.5°	159.7	166.7	187.2	210.6	221.2
155°	165.3	170.8	187.2	205.8	212.6
157.5°	170.7	175.0	187.2	201.6	205.9
160°	174.5	177.8	187.2	198.8	202.2
162.5°	177.3	179.7	187.2	197.0	199.4
165°	181.5	182.5	188.3	194.2	196.4
167.5°	183.9	184.1	187.2	192.5	193.7
170°	184.8	186.0	187.2	190.7	191.8
172.5°	186.7	186.9	188.1	189.7	190.0
175°	188.3	188.3	188.3	189.5	188.3
177.5°	188.3	188.3	188.3	188.3	188.3
180°	188.3	188.3	188.3	188.3	188.3



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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	22.55	23.78	23.18	24.42	25.15	21.22	22.45	21.85	23.09	23.82
	3H	24.60	25.71	25.24	26.36	27.12	22.28	23.39	22.93	24.04	24.80
	4H	25.35	26.39	26.01	27.05	27.83	22.52	23.55	23.18	24.22	25.00
	6H	25.86	26.81	26.53	27.49	28.28	22.68	23.64	23.35	24.31	25.10
	8H	25.99	26.90	26.68	27.60	28.39	22.72	23.63	23.41	24.33	25.13
	12H	26.05	26.92	26.74	27.61	28.43	22.73	23.60	23.42	24.29	25.11
4H	2H	22.97	24.01	23.63	24.67	25.45	21.91	22.95	22.57	23.61	24.39
	3H	25.11	25.97	25.79	26.67	27.47	23.12	23.99	23.80	24.69	25.49
	4H	25.94	26.72	26.63	27.43	28.26	23.41	24.20	24.11	24.90	25.73
	6H	26.55	27.22	27.26	27.95	28.79	23.64	24.32	24.36	25.05	25.89
	8H	26.72	27.36	27.44	28.08	28.93	23.71	24.34	24.43	25.07	25.92
	12H	26.81	27.38	27.55	28.13	28.98	23.73	24.30	24.47	25.05	25.91
8H	4H	25.99	26.62	26.71	27.35	28.20	23.66	24.29	24.38	25.02	25.87
	6H	26.65	27.18	27.40	27.95	28.80	23.95	24.47	24.69	25.24	26.09
	8H	26.88	27.35	27.64	28.12	28.99	24.05	24.52	24.81	25.29	26.16
	12H	27.01	27.42	27.78	28.18	29.11	24.11	24.52	24.87	25.28	26.21
12H	4H	25.96	26.52	26.70	27.27	28.13	23.67	24.24	24.41	24.99	25.85
	6H	26.63	27.10	27.39	27.87	28.74	23.98	24.44	24.74	25.22	26.08
	8H	26.88	27.29	27.64	28.05	28.98	24.11	24.52	24.87	25.28	26.21