

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

(formerly Eaton)

Brand: CORELITE

Report Number: P519939

Luminaire Tested: **SQ4-F-050U-100D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519939
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G3-1910-536-19)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-050U-100D-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

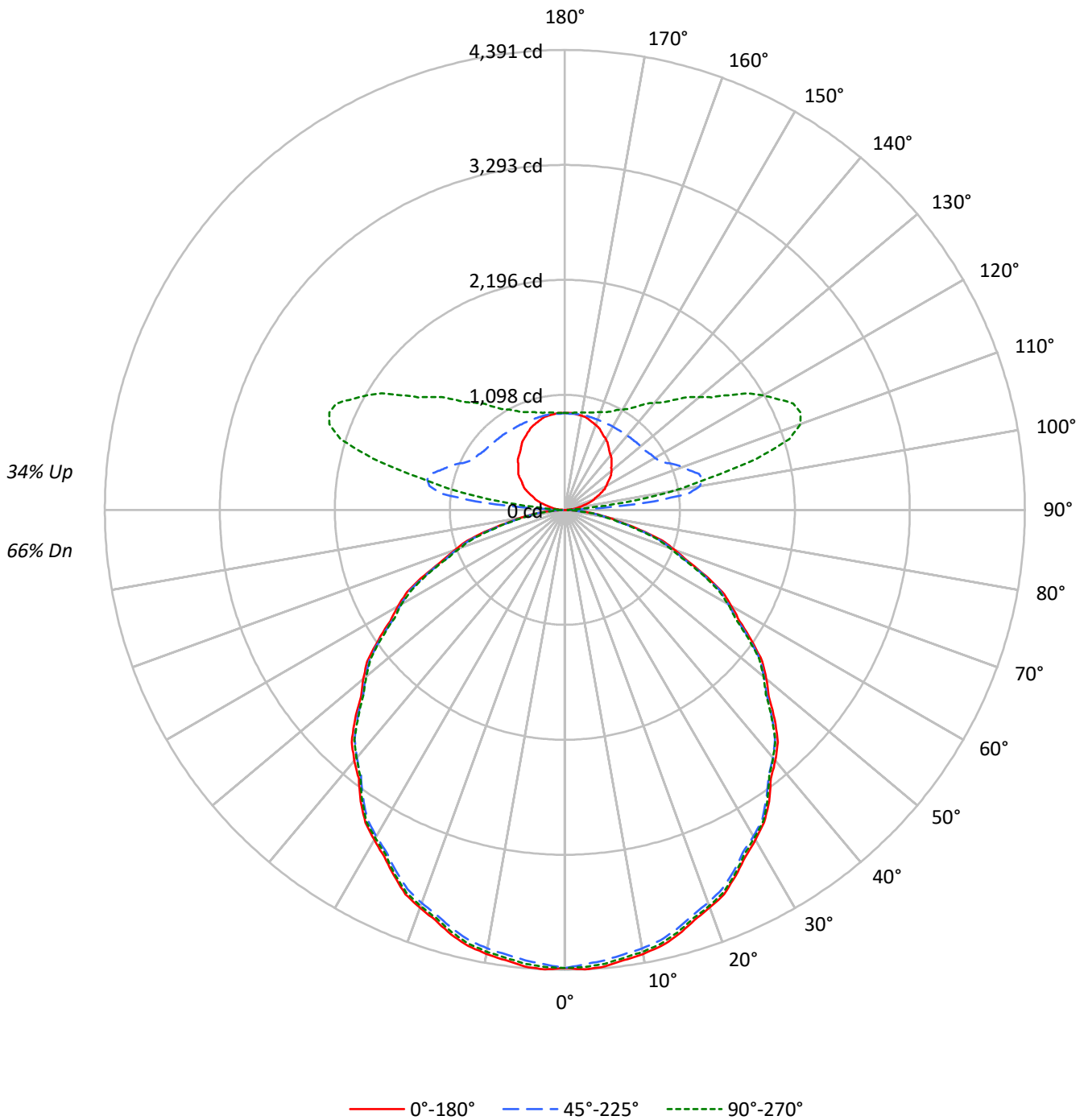
Lumens per Lamp: N/A
Luminaire Lumens: 17970.6 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 141.9
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	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66
1	101	97	93	89	95	91	88	85	81	79	76	72	70	68	63	61	60	56
2	92	85	78	73	87	80	74	69	71	67	63	63	59	57	55	53	51	47
3	84	74	67	61	79	70	63	58	63	57	53	55	51	48	49	46	43	39
4	77	66	58	51	72	62	55	49	56	50	45	49	45	41	44	40	37	34
5	71	59	50	44	66	56	48	42	50	44	39	44	39	35	39	35	32	29
6	65	53	44	38	61	50	42	37	45	39	34	40	35	31	36	31	28	26
7	60	48	39	34	57	45	38	32	41	34	30	36	31	27	32	28	25	23
8	56	43	35	30	53	41	34	29	37	31	27	33	28	24	30	26	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	26	21	28	23	20	25	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13453	13453	13453
5°	13514	13328	13430
10°	13445	13276	13380
15°	13364	13182	13287
20°	13226	13069	13177
25°	13082	12929	13030
30°	12922	12784	12848
35°	12760	12602	12670
40°	12548	12403	12415
45°	12327	12157	12118
50°	12009	11865	11837
55°	11655	11526	11446
60°	11302	11099	11062
65°	10750	10509	10421
70°	9989	9746	9557
75°	8918	8634	8456
80°	7339	7072	6753
85°	4344	4767	4873



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	412.9	2.3
10°-20°	1175.7	6.5
20°-30°	1765.6	9.8
30°-40°	2107.1	11.7
40°-50°	2159.8	12.0
50°-60°	1923.3	10.7
60°-70°	1433.7	8.0
70°-80°	776.2	4.3
80°-90°	180.2	1.0
90°-100°	443.8	2.5
100°-110°	1205.5	6.7
110°-120°	1239.5	6.9
120°-130°	991.0	5.5
130°-140°	778.7	4.3
140°-150°	597.1	3.3
150°-160°	429.4	2.4
160°-170°	262.6	1.5
170°-180°	88.5	0.5
0°-30°	3354.2	18.7
0°-40°	5461.4	30.4
0°-60°	9544.5	53.1
0°-90°	11934.7	66.4
90°-120°	2888.8	16.1
90°-150°	5255.5	29.2
90°-180°	6036.0	33.6
0°-180°	17970.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4374	4374	4374	4374	4374	
5°	4378	4369	4317	4356	4350	415
15°	4197	4183	4140	4173	4173	1182
25°	3855	3846	3810	3831	3840	1776
35°	3399	3384	3357	3363	3375	2122
45°	2834	2820	2795	2780	2786	2181
55°	2174	2177	2150	2129	2135	1946
65°	1477	1471	1444	1429	1432	1461
75°	750	742	727	712	712	799
85°	123	135	135	138	138	172
90°	3	12	21	27	27	8
95°	65	243	773	336	226	69
105°	214	333	1326	2019	1899	227
115°	380	462	1061	2111	2405	375
125°	523	596	960	1618	1908	466
135°	630	700	933	1318	1486	487
145°	728	781	921	1120	1204	457
155°	823	852	916	1005	1034	380
165°	892	903	918	957	960	252
175°	924	927	921	933	930	88
180°	924	924	924	924	924	

TEST NUMBER: P519939

CATALOG NUMBER: SQ4-F-050U-100D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4374.5	4374.5	4374.5	4374.5	4374.5
2.5°	4391.3	4381.9	4343.3	4374.4	4369.6
5°	4377.5	4368.6	4317.4	4356.3	4350.4
7.5°	4336.6	4327.8	4282.6	4318.5	4313.2
10°	4305.4	4296.6	4251.3	4287.3	4284.4
12.5°	4264.6	4255.8	4210.5	4246.5	4243.6
15°	4197.3	4182.7	4140.3	4173.3	4173.3
17.5°	4108.4	4097.3	4058.0	4085.7	4086.3
20°	4041.2	4032.4	3993.2	4023.2	4026.2
22.5°	3974.0	3965.2	3921.1	3948.8	3954.2
25°	3855.1	3846.3	3810.0	3831.2	3840.0
27.5°	3732.5	3719.6	3683.9	3702.7	3709.1
30°	3638.9	3633.0	3599.9	3609.1	3617.9
32.5°	3540.4	3534.6	3506.2	3510.8	3526.6
35°	3398.7	3384.1	3356.7	3363.0	3374.6
37.5°	3231.2	3224.1	3197.6	3194.2	3205.3
40°	3125.5	3113.8	3089.5	3083.6	3092.5
42.5°	3010.2	2998.4	2969.4	2963.6	2974.7
45°	2834.2	2819.6	2795.2	2780.3	2786.2
47.5°	2637.3	2637.3	2612.1	2594.9	2603.7
50°	2510.0	2510.0	2479.9	2465.2	2474.0
52.5°	2377.9	2380.3	2347.9	2340.0	2337.1
55°	2173.8	2176.6	2149.7	2128.8	2134.7
57.5°	1976.8	1970.3	1938.9	1925.2	1928.1
60°	1837.5	1828.7	1804.4	1783.8	1798.4
62.5°	1695.8	1691.6	1667.6	1644.1	1642.3
65°	1477.2	1471.3	1444.1	1429.2	1432.1
67.5°	1259.8	1252.8	1227.9	1206.5	1214.2
70°	1110.9	1110.9	1083.9	1071.7	1062.9
72.5°	974.0	962.2	942.2	925.2	918.7
75°	750.5	741.8	726.6	711.6	711.6
77.5°	546.4	538.8	529.0	518.7	515.8
80°	414.4	411.4	399.3	395.9	381.3
82.5°	291.8	291.2	284.1	276.2	275.6
85°	123.1	134.9	135.1	138.1	138.1
87.5°	22.2	38.0	37.8	34.2	34.2
90°	2.9	11.7	20.8	26.8	26.8
92.5°	26.8	121.5	211.1	90.7	76.7
95°	65.4	242.7	772.9	336.4	225.9
97.5°	108.2	268.1	1184.8	921.7	647.4
100°	136.7	285.0	1310.9	1328.9	1073.0
102.5°	165.2	301.8	1344.2	1643.4	1417.9
105°	214.0	333.1	1325.7	2018.6	1899.4
107.5°	264.6	369.7	1249.0	2212.2	2245.4
110°	300.2	396.1	1192.0	2250.4	2392.9

TEST NUMBER: P519939

CATALOG NUMBER: SQ4-F-050U-100D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	331.1	422.3	1134.9	2218.8	2433.3
115°	380.4	461.9	1061.2	2111.1	2404.7
117.5°	426.9	504.8	1014.2	1958.6	2289.3
120°	457.8	533.3	992.8	1856.3	2184.7
122.5°	483.9	559.5	978.5	1753.9	2070.6
125°	523.1	595.8	960.1	1617.6	1908.3
127.5°	558.3	630.3	950.0	1514.5	1763.9
130°	579.6	649.4	945.3	1449.7	1673.5
132.5°	601.0	670.8	940.5	1394.4	1592.6
135°	630.2	700.0	933.4	1317.7	1486.3
137.5°	661.7	725.1	929.8	1249.9	1391.7
140°	680.7	741.8	927.4	1206.8	1334.6
142.5°	699.8	756.1	925.1	1173.0	1279.9
145°	728.2	780.6	921.4	1119.5	1203.8
147.5°	760.4	805.1	918.5	1077.5	1143.8
150°	781.8	819.6	918.5	1053.4	1105.7
152.5°	798.4	831.5	916.1	1031.8	1074.8
155°	823.4	852.4	915.5	1005.3	1034.4
157.5°	847.7	870.4	915.5	987.4	1009.4
160°	862.1	882.4	915.5	975.4	992.8
162.5°	876.3	892.0	917.9	965.8	978.5
165°	891.7	903.4	918.5	957.2	960.1
167.5°	907.8	913.6	921.4	947.0	949.4
170°	912.5	918.4	921.4	942.2	942.2
172.5°	917.3	920.7	921.4	937.5	937.5
175°	924.5	927.3	921.4	933.3	930.4
177.5°	926.8	926.8	919.7	929.1	924.5
180°	924.5	924.5	924.5	924.5	924.5

(END OF REPORT)