

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: P520218

Luminaire Tested: **SQ4-F-100U-075D-940-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520218
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-18)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-100U-075D-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

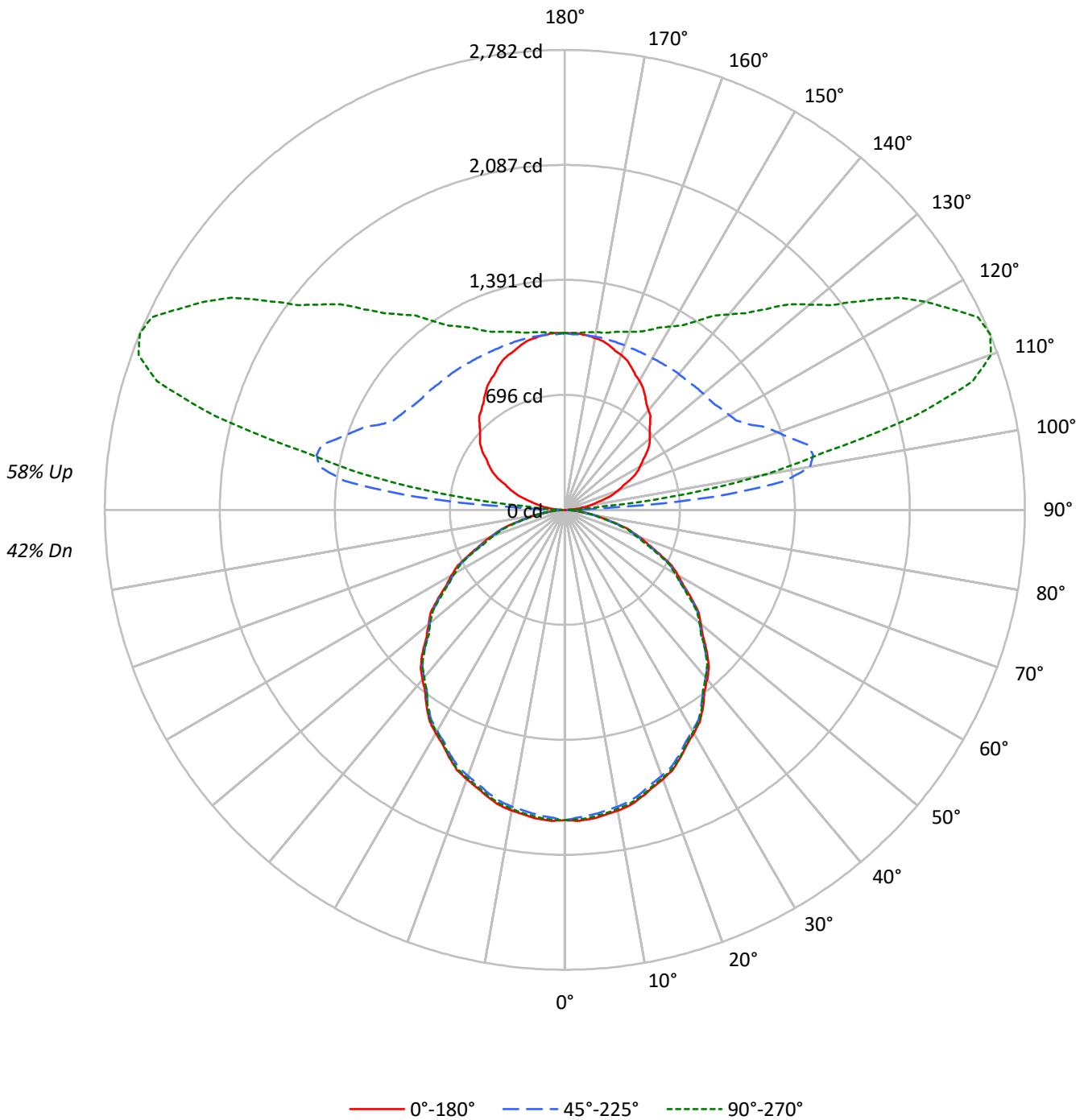
Lumens per Lamp: N/A
Luminaire Lumens: 12069.4 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 103.7
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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	42
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	43	42	42	36
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	34	31	30	25
4	73	62	54	48	66	57	50	45	47	42	38	38	35	32	30	28	25	22
5	67	55	47	41	61	51	44	38	42	37	33	34	30	27	27	24	22	19
6	61	49	41	36	56	45	38	33	38	33	29	31	27	24	24	22	19	16
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17	14
8	53	40	33	27	48	37	30	26	31	26	22	26	22	19	20	18	15	13
9	49	37	29	24	45	34	27	23	29	23	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	20	26	21	18	22	18	15	17	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8657	8657	8657
5°	8690	8580	8643
10°	8656	8544	8607
15°	8589	8483	8556
20°	8511	8411	8478
25°	8418	8331	8392
30°	8311	8220	8266
35°	8202	8116	8153
40°	8063	7982	7971
45°	7925	7825	7848
50°	7705	7643	7643
55°	7526	7430	7362
60°	7283	7158	7095
65°	6890	6760	6667
70°	6471	6311	6150
75°	5823	5611	5488
80°	4657	4564	4519
85°	2789	3149	3239



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.1	1.5
10°-20°	504.3	4.2
20°-30°	757.6	6.3
30°-40°	904.0	7.5
40°-50°	927.1	7.7
50°-60°	826.1	6.8
60°-70°	616.0	5.1
70°-80°	334.0	2.8
80°-90°	78.9	0.7
90°-100°	500.5	4.1
100°-110°	1381.7	11.4
110°-120°	1425.0	11.8
120°-130°	1145.1	9.5
130°-140°	899.9	7.5
140°-150°	690.2	5.7
150°-160°	496.0	4.1
160°-170°	303.4	2.5
170°-180°	102.3	0.8
0°-30°	1439.1	11.9
0°-40°	2343.1	19.4
0°-60°	4096.3	33.9
0°-90°	5125.3	42.5
90°-120°	3307.2	27.4
90°-150°	6042.4	50.1
90°-180°	6944.0	57.5
0°-180°	12069.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1877	1877	1877	1877	1877	
5°	1877	1873	1853	1868	1866	178
15°	1798	1795	1776	1790	1792	507
25°	1654	1652	1637	1645	1649	762
35°	1456	1453	1441	1441	1448	910
45°	1215	1210	1200	1200	1203	935
55°	936	934	924	915	915	836
65°	631	631	619	612	611	628
75°	327	320	315	310	308	343
85°	53	56	60	60	61	73
90°	4	7	14	15	17	7
95°	74	271	908	373	243	79
105°	246	380	1520	2321	2185	262
115°	441	533	1224	2424	2756	434
125°	605	689	1110	1878	2204	539
135°	728	807	1079	1521	1715	564
145°	845	903	1065	1295	1394	529
155°	952	984	1057	1162	1199	439
165°	1031	1044	1062	1103	1112	291
175°	1069	1070	1064	1079	1076	102
180°	1069	1069	1069	1069	1069	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1876.6	1876.6	1876.6	1876.6	1876.6
2.5°	1883.5	1879.5	1863.0	1876.6	1875.3
5°	1876.6	1873.4	1852.8	1868.1	1866.5
7.5°	1861.4	1857.7	1837.5	1852.8	1852.5
10°	1847.8	1842.8	1823.9	1839.2	1837.5
12.5°	1830.1	1825.0	1806.2	1821.5	1819.8
15°	1798.4	1795.0	1776.2	1789.9	1791.6
17.5°	1762.4	1756.0	1739.1	1752.5	1754.2
20°	1733.7	1728.7	1713.3	1725.3	1726.9
22.5°	1703.8	1698.8	1683.3	1695.3	1697.0
25°	1653.8	1652.1	1636.8	1645.4	1648.7
27.5°	1599.7	1595.0	1582.7	1589.2	1592.5
30°	1560.2	1556.9	1543.2	1548.3	1551.7
32.5°	1519.4	1517.3	1505.0	1507.6	1512.2
35°	1456.4	1453.1	1441.1	1441.3	1447.8
37.5°	1386.6	1383.0	1373.1	1371.4	1374.0
40°	1339.0	1334.0	1325.4	1323.7	1323.7
42.5°	1290.0	1286.4	1275.0	1272.1	1276.0
45°	1214.8	1209.8	1199.5	1199.6	1202.9
47.5°	1133.4	1131.5	1119.6	1114.2	1115.4
50°	1073.6	1077.0	1065.0	1058.5	1065.0
52.5°	1021.8	1019.9	1009.3	1002.6	1005.2
55°	935.7	934.1	923.8	915.4	915.4
57.5°	849.3	845.0	834.4	828.0	833.0
60°	789.4	787.7	775.8	764.0	769.0
62.5°	729.6	726.5	714.6	706.9	710.5
65°	631.2	631.2	619.3	612.5	610.8
67.5°	545.2	537.1	530.5	522.2	520.0
70°	479.8	473.1	467.9	460.9	456.0
72.5°	415.9	411.8	404.0	397.1	396.1
75°	326.7	320.0	314.8	309.6	307.9
77.5°	232.4	231.1	226.3	223.6	224.6
80°	175.3	175.3	171.8	171.8	170.1
82.5°	123.5	124.9	124.2	121.4	121.1
85°	52.7	56.1	59.5	59.6	61.2
87.5°	10.2	17.5	17.7	18.0	18.4
90°	3.5	6.7	13.7	15.4	17.1
92.5°	30.8	127.7	228.4	83.4	65.0
95°	73.5	270.8	908.0	373.2	242.9
97.5°	121.8	303.3	1345.0	1035.6	750.0
100°	157.3	322.9	1506.5	1517.2	1232.9
102.5°	191.5	345.0	1537.9	1874.5	1605.0
105°	246.2	380.0	1520.1	2320.8	2185.4
107.5°	304.4	423.4	1435.4	2536.0	2585.5
110°	345.4	452.5	1369.7	2582.3	2742.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	382.3	485.3	1308.1	2545.8	2782.5
115°	441.2	533.1	1224.4	2423.8	2756.5
117.5°	492.4	584.1	1169.3	2252.1	2630.6
120°	526.7	617.0	1147.4	2135.8	2517.1
122.5°	559.5	645.8	1129.6	2027.3	2388.5
125°	605.3	688.9	1109.8	1878.1	2204.2
127.5°	644.3	727.9	1098.1	1751.9	2033.1
130°	670.3	753.9	1092.7	1674.7	1930.6
132.5°	694.9	774.6	1087.2	1609.9	1841.6
135°	728.5	807.0	1079.0	1521.1	1715.1
137.5°	766.1	837.7	1074.9	1446.6	1612.1
140°	786.6	856.8	1072.1	1397.0	1542.4
142.5°	809.9	874.7	1069.4	1352.8	1480.9
145°	844.7	903.3	1065.3	1295.0	1393.6
147.5°	878.2	929.4	1061.5	1246.2	1322.9
150°	902.9	944.7	1060.1	1217.2	1279.1
152.5°	922.1	961.1	1058.9	1192.3	1243.4
155°	952.4	984.2	1056.8	1161.9	1198.7
157.5°	980.5	1004.9	1057.1	1139.8	1164.8
160°	996.9	1018.7	1058.5	1127.3	1145.7
162.5°	1010.6	1029.7	1059.8	1116.2	1130.7
165°	1031.2	1044.5	1061.9	1103.1	1111.5
167.5°	1046.9	1054.9	1063.6	1095.2	1097.8
170°	1055.1	1061.7	1063.6	1091.0	1091.0
172.5°	1061.9	1065.9	1063.6	1085.5	1084.1
175°	1068.8	1070.4	1063.6	1078.9	1075.6
177.5°	1071.4	1070.1	1063.2	1072.8	1070.1
180°	1068.8	1068.8	1068.8	1068.8	1068.8

(END OF REPORT)