

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P1212541

Luminaire Tested: **LDSQA6A35940D010TE LARL20NF 6LSQA1H**

Issue Date: 3/3/2020

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-41-14
Report Number: P1212541
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29055)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A35940D010TE LARL20NF 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

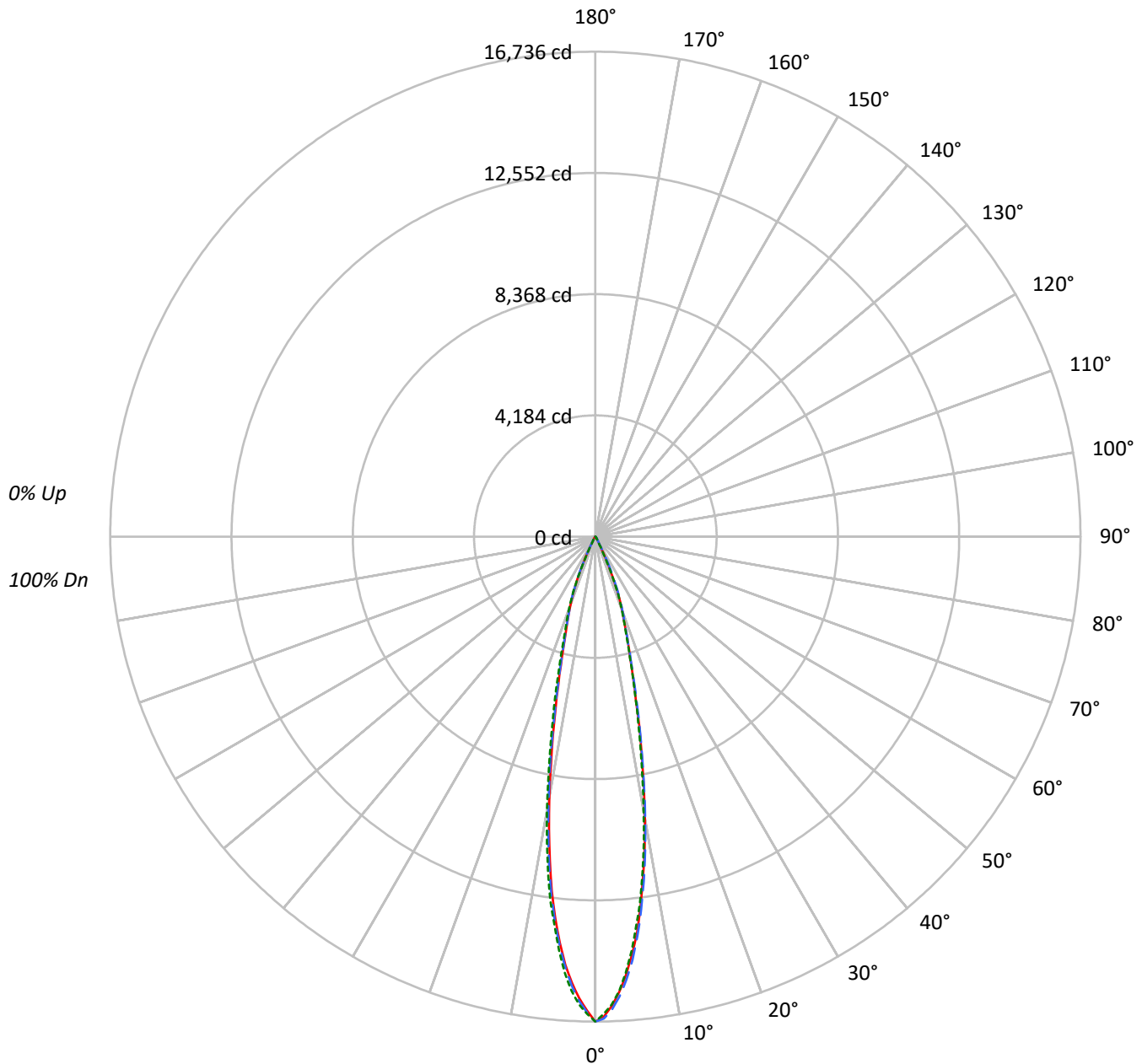
Lumens per Lamp: N/A
Luminaire Lumens: 3195.2 lumens
Efficiency: N/A
Efficacy: 67.0 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.38 / 0.39
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 47.7
Input Voltage (V): NR
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: 25 FT

TEST NUMBER: P1212541

CATALOG NUMBER: LDSQA6A35940D010TE LARL20NF 6LSQA1H

Luminous Intensity Polar Plot



TEST NUMBER: P1212541

CATALOG NUMBER: LDSQA6A35940D010TE LARL20NF 6LSQA1H

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97	97	97
2	112	108	105	103	110	107	104	102	103	101	100	101	99	97	98	97	95	94	94	94
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91	91	91
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89
5	102	97	93	90	101	96	92	89	94	91	89	93	90	88	91	89	87	86	86	86
6	99	94	90	87	98	93	89	86	92	88	86	90	88	85	89	87	85	84	84	84
7	97	91	87	84	96	90	86	84	89	86	83	88	85	83	87	85	83	82	82	82
8	94	88	84	82	93	88	84	81	87	83	81	86	83	81	85	82	80	80	80	80
9	92	86	82	79	91	85	82	79	85	81	79	84	81	79	83	80	78	78	78	78
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	81	79	77	76	76	76

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	720588	720588	720588
5°	626229	619824	608639
10°	430221	419754	398730
15°	224045	222066	204535
20°	124577	121915	115331
25°	41217	38181	44789
30°	9128	8447	7537
35°	3416	3359	3001
40°	1343	1287	1214
45°	414	414	414
50°	74	74	154
55°	83	0	83
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P1212541

CATALOG NUMBER: LDSQA6A35940D010TE LARL20NF 6LSQA1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1222.4	38.3
10°-20°	1416.9	44.3
20°-30°	492.4	15.4
30°-40°	52.4	1.6
40°-50°	10.1	0.3
50°-60°	1.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3131.6	98.0
0°-40°	3184.1	99.7
0°-60°	3195.2	100.0
0°-90°	3195.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3195.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	16736	16736	16736	16736	16736	
5°	14489	14665	14341	14164	14082	1231
15°	5026	5136	4982	4692	4589	1446
25°	868	1128	804	985	943	470
35°	65	91	64	82	57	49
45°	7	18	7	17	7	7
55°	1	1	0	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0

TEST NUMBER: P1212541

CATALOG NUMBER: LDSQA6A35940D010TE LARL20NF 6LSQA1H

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	16736.2	16736.2	16736.2	16736.2	16736.2	16736.2	16736.2	16736.2	16736.2
1°	16582.3	16580.2	16639.4	16655.4	16475.2	16721.5	16428.4	16728.3	16366.9
2°	16209.5	16230.1	16331.6	16317.9	16160.6	16377.1	16033.0	16268.9	15944.0
3°	15736.5	15773.0	15890.4	15881.2	15697.8	15883.6	15518.7	15729.7	15424.2
4°	15157.4	15242.9	15340.9	15367.1	15087.8	15255.4	14900.9	15098.0	14807.3
5°	14489.3	14602.1	14665.0	14629.5	14341.1	14495.0	14164.4	14444.8	14082.3
6°	13734.7	13822.4	13869.2	13806.5	13487.2	13661.6	13352.8	13591.1	13236.5
7°	12836.3	12935.5	12973.1	12911.6	12690.4	12761.1	12452.2	12651.7	12319.9
8°	11838.8	11988.2	11993.9	11938.0	11708.8	11631.4	11454.7	11600.6	11286.0
9°	10859.6	10971.4	10969.0	10928.0	10674.9	10562.0	10390.0	10493.6	10214.5
10°	9840.4	9940.9	9906.7	9869.0	9601.0	9475.7	9310.3	9365.0	9120.1
11°	8761.0	8888.6	8833.9	8797.3	8530.6	8407.4	8242.2	8257.0	8041.5
12°	7670.0	7851.2	7786.3	7762.3	7516.1	7396.4	7247.0	7231.0	7027.0
13°	6754.5	6866.3	6802.4	6789.8	6573.2	6469.6	6228.9	6292.8	6107.0
14°	5777.5	5972.4	5915.5	5909.8	5731.9	5635.1	5412.8	5462.8	5301.0
15°	5026.3	5181.3	5135.8	5133.4	4981.9	4889.5	4692.2	4733.3	4588.6
16°	4342.3	4488.1	4455.2	4460.8	4326.3	4245.3	4074.3	4108.5	3992.2
17°	3865.7	3918.2	3887.5	3887.5	3775.7	3725.5	3578.4	3611.5	3520.3
18°	3391.6	3410.8	3430.3	3433.7	3335.6	3301.4	3178.3	3208.0	3132.7
19°	3002.8	3049.6	3060.9	3063.2	2976.5	2957.2	2851.2	2873.9	2812.3
20°	2718.9	2746.3	2749.7	2743.9	2660.8	2644.7	2550.2	2570.8	2517.1
21°	2390.6	2438.5	2428.2	2419.0	2332.4	2319.8	2240.1	2243.5	2191.1
22°	2024.6	2110.1	2098.8	2082.8	1965.4	1948.3	1927.8	1919.7	1869.7
23°	1576.6	1776.1	1765.8	1743.1	1572.1	1623.4	1610.8	1596.1	1549.3
24°	1209.6	1444.3	1438.7	1403.3	1176.5	1304.1	1290.4	1278.0	1241.5
25°	867.6	1126.3	1127.5	1072.8	803.7	1032.8	985.0	975.8	942.8
26°	620.1	837.9	843.7	765.0	493.6	745.6	711.4	698.8	672.7
27°	377.3	583.7	595.1	501.7	307.8	500.4	478.8	465.1	389.9
28°	259.9	380.7	394.4	310.1	240.5	334.1	307.8	291.8	226.8
29°	222.3	248.6	258.8	218.9	202.9	222.3	209.7	202.9	183.6
30°	183.6	189.2	193.9	181.3	169.9	175.5	169.9	164.2	151.6
32.5°	116.3	126.5	130.0	120.8	110.5	113.9	113.9	106.0	95.8
35°	65.0	81.0	91.3	79.7	63.9	76.3	82.1	70.7	57.1
37.5°	40.0	50.2	63.9	50.2	38.7	49.0	59.2	44.5	36.5
40°	23.9	30.8	45.5	30.8	22.9	29.7	41.0	27.4	21.6
42.5°	13.7	18.2	29.7	18.2	12.6	17.1	27.4	16.0	12.6
45°	6.8	10.3	18.2	10.3	6.8	10.3	17.1	9.2	6.8
47.5°	3.4	5.8	10.3	5.8	3.4	5.8	9.2	5.8	3.4
50°	1.1	2.3	5.8	2.3	1.1	2.3	5.8	2.3	2.3
52.5°	1.1	1.1	3.4	1.1	1.1	1.1	2.3	1.1	1.1
55°	1.1	1.1	1.1	1.1	0.0	1.1	1.1	1.1	1.1
57.5°	1.1	0.0	1.1	0.0	0.0	0.0	1.1	1.1	1.1
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1212541

CATALOG NUMBER: LDSQA6A35940D010TE LARL20NF 6LSQA1H

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



Report Generated By 670245859 / DESKTOP-T8S5UU9

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)