

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P843390

Luminaire Tested: **LD4C15DE010B35 EU4C15B35 4LBSQLI**

Issue Date: 5/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P843390  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209151)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C15DE010B35 EU4C15B35 4LBSQLI  
Description: 4in Downlight with BioUp LEDs  
Light Source: -  
Ballast/Driver:

**Summary**

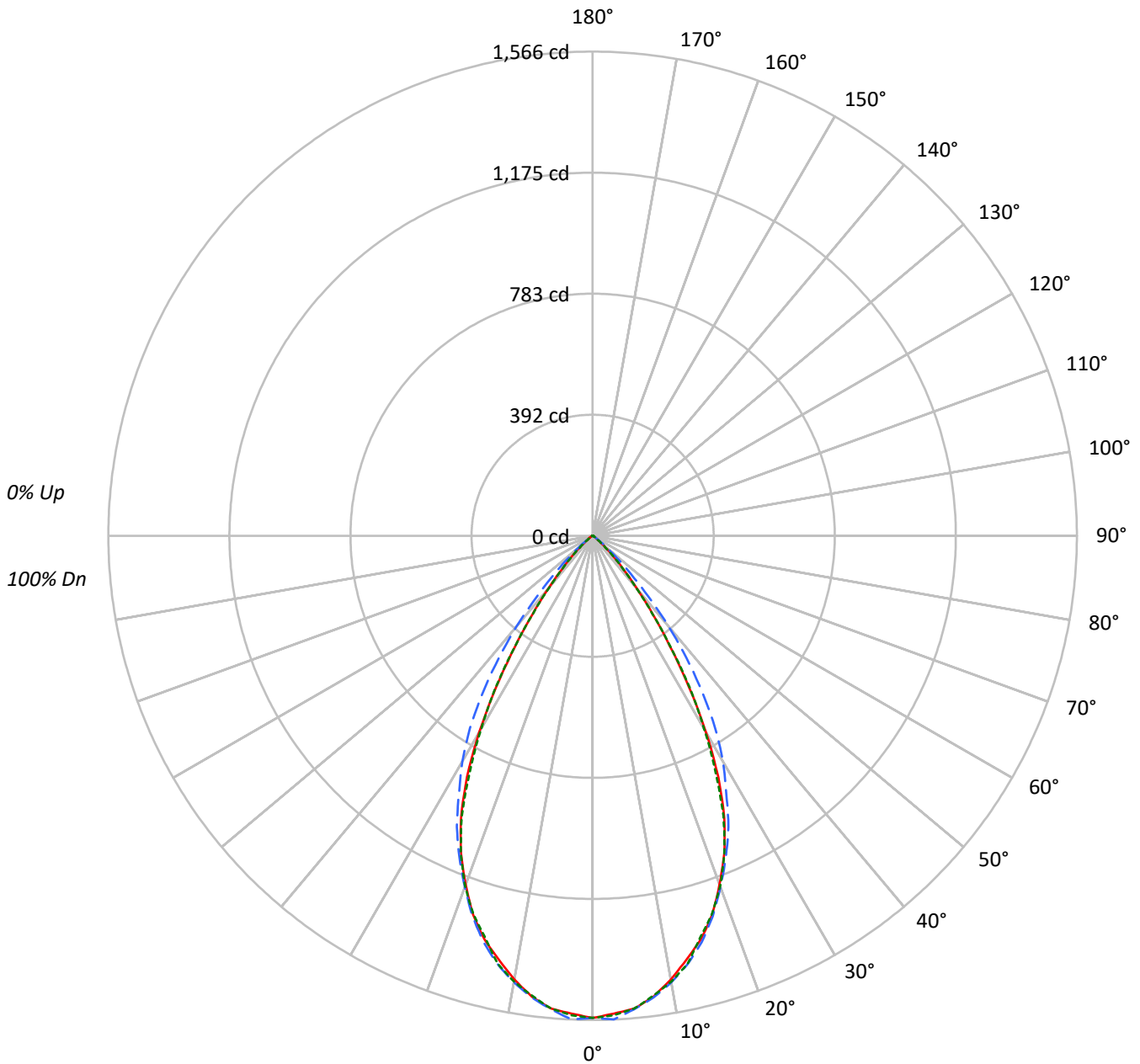
Lumens per Lamp: N/A  
Luminaire Lumens: 1439.5 lumens  
Efficiency: N/A  
Efficacy: 84.7 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.9 / 0.94  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 17  
Input Voltage (V):  
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

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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	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93								
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87								
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80								
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75								
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69								
6	87	78	72	68	86	77	71	67	76	71	67	74	70	66	73	69	66	64								
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60								
8	79	69	63	59	77	68	62	58	67	62	58	66	61	58	65	61	58	56								
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53								
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	150445	150445	150445
5°	148715	148909	148715
10°	142763	143645	143449
15°	134965	135964	134266
20°	123177	124090	123782
25°	107252	110626	106506
30°	81556	93812	80342
35°	51345	72925	51805
40°	27698	48153	27207
45°	13100	23784	12977
50°	4909	8917	4909
55°	2338	2826	2170
60°	1525	1351	1525
65°	890	890	890
70°	564	846	564
75°	410	410	410
80°	611	611	611
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.6	10.0
10°-20°	378.9	26.3
20°-30°	462.8	32.2
30°-40°	323.7	22.5
40°-50°	106.1	7.4
50°-60°	16.9	1.2
60°-70°	4.6	0.3
70°-80°	1.6	0.1
80°-90°	0.5	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°	986.2	68.5
0°-40°	1309.9	91.0
0°-60°	1432.9	99.5
0°-90°	1439.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1439.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1559	1559	1559	1559	1559	
5°	1535	1536	1537	1528	1535	144
15°	1351	1357	1361	1352	1344	377
25°	1007	1023	1039	1020	1000	453
35°	436	515	619	507	440	278
45°	96	118	174	117	95	81
55°	14	15	17	15	13	14
65°	4	5	4	5	4	4
75°	1	1	1	1	1	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2
2.5°	1547.2	1558.2	1555.1	1562.1	1562.1	1554.2	1556.2	1559.2	1563.1	1566.0	1542.2
5°	1535.4	1545.3	1536.3	1546.3	1540.3	1531.5	1546.3	1538.3	1543.3	1537.4	1541.3
7.5°	1503.6	1519.5	1501.7	1513.6	1509.7	1504.7	1510.6	1508.6	1511.6	1506.6	1495.7
10°	1457.1	1470.0	1458.2	1475.0	1467.0	1462.1	1467.0	1472.0	1471.0	1466.1	1472.0
12.5°	1403.6	1418.5	1412.6	1422.4	1413.5	1413.5	1425.4	1422.4	1423.5	1419.5	1426.4
15°	1351.1	1362.0	1353.1	1366.0	1362.0	1351.1	1356.1	1356.1	1364.0	1361.1	1353.1
17.5°	1285.8	1294.6	1284.7	1287.8	1283.8	1281.7	1302.6	1288.7	1296.7	1290.7	1291.7
20°	1199.6	1203.6	1200.5	1208.5	1203.6	1209.5	1207.5	1205.5	1205.5	1208.5	1201.6
22.5°	1112.4	1112.4	1115.4	1117.4	1121.3	1115.4	1127.2	1117.4	1118.3	1125.3	1123.3
25°	1007.4	1004.4	1011.4	1021.3	1025.3	1020.3	1036.1	1028.2	1034.2	1039.1	1028.2
27.5°	879.6	879.6	886.5	903.4	906.4	912.3	934.1	934.1	942.0	935.1	943.0
30°	732.0	742.9	751.9	773.7	780.5	793.4	816.2	827.2	844.9	842.0	838.0
32.5°	580.4	595.3	596.3	619.1	637.9	659.6	690.4	716.1	729.0	737.9	728.1
35°	435.9	444.7	452.7	468.5	500.3	528.9	556.7	590.4	613.2	619.1	610.1
37.5°	319.0	321.0	328.9	343.7	367.5	395.2	428.9	465.6	489.4	498.3	488.3
40°	219.9	221.9	225.8	238.7	258.6	278.4	305.1	342.8	364.6	382.3	369.4
42.5°	147.5	149.5	153.6	163.4	174.3	193.1	214.0	237.8	258.6	266.4	259.5
45°	96.0	96.0	98.0	105.0	110.9	125.8	140.7	155.5	169.3	174.3	169.3
47.5°	56.5	57.4	59.4	64.4	71.3	77.2	88.2	98.0	102.1	106.0	104.0
50°	32.7	32.7	35.6	38.6	43.6	47.5	51.5	55.4	57.4	59.4	57.4
52.5°	17.9	18.8	19.8	20.8	22.8	26.8	29.7	29.7	30.7	31.7	30.7
55°	13.9	13.9	13.9	13.9	14.9	14.9	14.9	15.9	15.9	16.8	15.9
57.5°	9.9	9.9	9.9	10.9	10.9	10.9	9.9	9.9	9.9	9.9	9.9
60°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.0	7.0	7.0	7.0
62.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
65°	3.9	3.9	5.0	5.0	5.0	5.0	5.0	3.9	3.9	3.9	3.9
67.5°	3.0	3.0	3.0	3.0	3.9	3.9	3.0	3.0	3.0	3.0	3.0
70°	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	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	0.0	0.0
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2
2.5°	1559.2	1542.2	1544.3	1553.2	1548.3	1553.2	1552.2	1552.2
5°	1542.2	1537.4	1529.4	1526.5	1532.4	1545.3	1543.3	1535.4
7.5°	1510.6	1497.7	1506.6	1510.6	1505.6	1513.6	1517.5	1500.7
10°	1473.0	1468.0	1466.1	1468.0	1466.1	1473.9	1464.1	1464.1
12.5°	1419.5	1411.5	1411.5	1423.5	1416.5	1410.6	1418.5	1417.5
15°	1366.0	1350.1	1350.1	1354.1	1357.0	1353.1	1354.1	1344.1
17.5°	1286.7	1281.7	1274.9	1285.8	1288.7	1284.7	1287.8	1282.8
20°	1212.5	1212.5	1199.6	1204.5	1208.5	1211.4	1213.4	1205.5
22.5°	1117.4	1119.3	1110.4	1120.4	1123.3	1113.4	1115.4	1113.4
25°	1030.1	1029.2	1022.2	1018.3	1020.3	1016.3	1015.3	1000.4
27.5°	934.1	924.2	909.4	913.3	896.5	882.6	882.6	859.8
30°	830.0	813.2	793.4	773.7	758.7	742.9	734.0	721.1
32.5°	708.2	685.5	660.7	633.9	617.1	593.3	580.4	587.4
35°	587.4	553.7	520.0	493.3	467.6	453.6	437.9	439.8
37.5°	470.5	422.9	393.2	364.6	342.8	324.9	317.9	316.0
40°	343.7	306.1	276.4	255.5	240.7	226.9	218.9	216.0
42.5°	237.8	211.0	187.2	170.4	160.4	151.6	147.5	146.6
45°	154.5	138.7	122.8	110.9	103.0	97.1	96.0	95.1
47.5°	97.1	89.2	79.2	70.3	63.4	59.4	56.5	56.5
50°	55.4	52.5	47.5	42.6	38.6	36.7	33.6	32.7
52.5°	29.7	29.7	27.7	23.8	20.8	18.8	18.8	17.9
55°	15.9	15.9	14.9	14.9	13.9	13.9	13.9	12.9
57.5°	9.9	9.9	10.9	10.9	9.9	9.9	9.9	9.9
60°	7.0	7.9	7.9	7.9	7.9	7.9	7.9	7.9
62.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
65°	3.9	5.0	5.0	5.0	5.0	3.9	3.9	3.9
67.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
70°	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	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
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°









(END OF REPORT)