

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: P843320

Luminaire Tested: **LD4C10DE010B35 EU4C10B35 4LBSQLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843320
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: LD4C10DE010B35 EU4C10B35 4LBSQLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

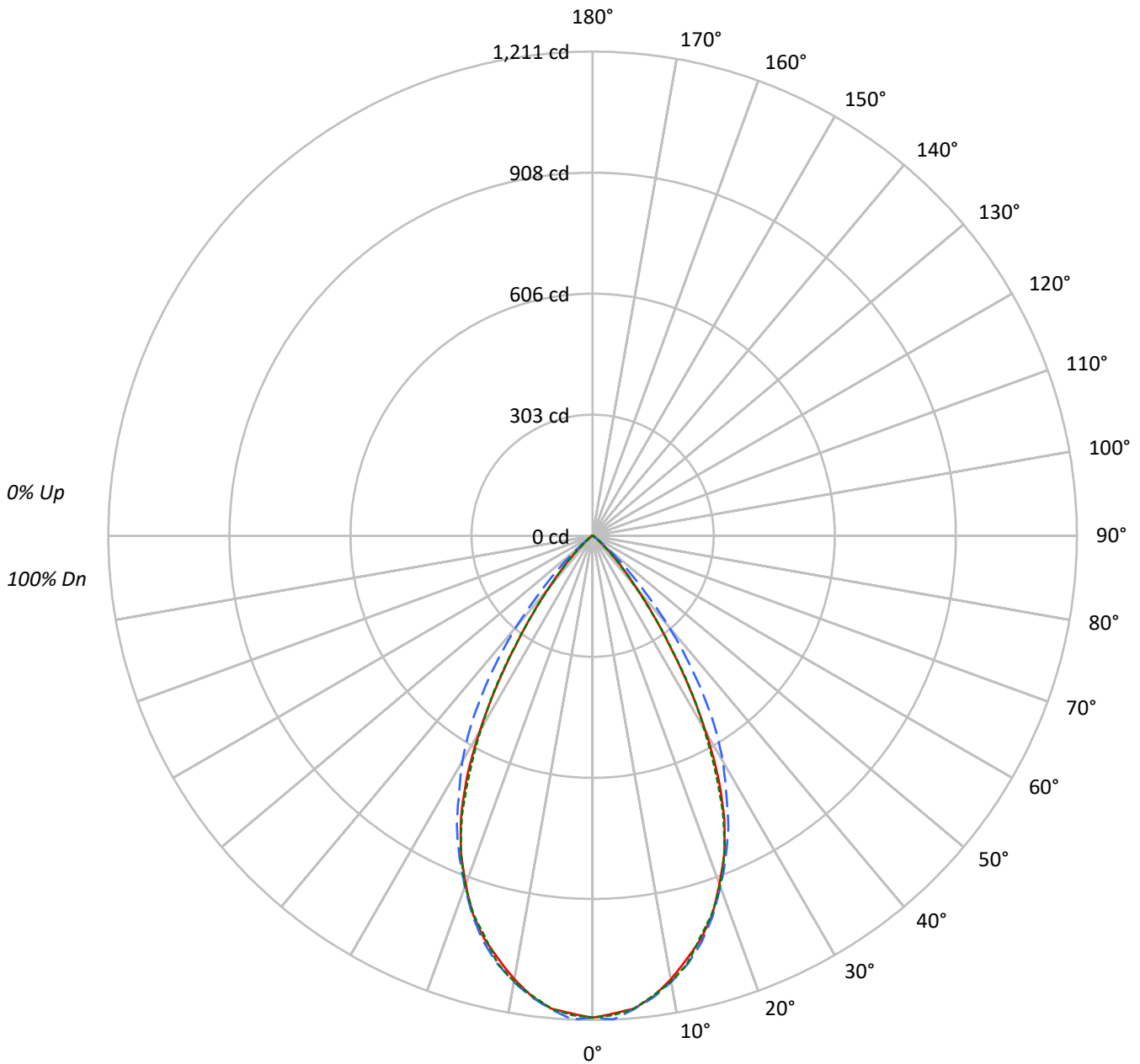
Lumens per Lamp: N/A
Luminaire Lumens: 1112.5 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.9 / 0.94
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 13.3
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

TEST NUMBER: P843320

CATALOG NUMBER: LD4C10DE010B35 EU4C10B35 4LBSQLI

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	72	67	76	71	67	74	70	66	73	69	66	65																			
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°	116288	116288	116288
5°	114950	115105	114950
10°	110352	111018	110881
15°	104328	105087	103788
20°	95206	95915	95678
25°	82903	85512	82328
30°	63039	72509	62103
35°	39684	56375	40037
40°	21413	37220	21022
45°	10125	18381	10030
50°	3798	6890	3798
55°	1800	2187	1665
60°	1177	1042	1177
65°	708	708	708
70°	423	649	423
75°	261	261	261
80°	389	389	389
85°	0	0	0



TEST NUMBER: P843320

CATALOG NUMBER: LD4C10DE010B35 EU4C10B35 4LBSQLI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.7	10.0
10°-20°	292.8	26.3
20°-30°	357.7	32.2
30°-40°	250.2	22.5
40°-50°	82.0	7.4
50°-60°	13.0	1.2
60°-70°	3.5	0.3
70°-80°	1.1	0.1
80°-90°	0.3	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°	762.3	68.5
0°-40°	1012.5	91.0
0°-60°	1107.6	99.6
0°-90°	1112.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1112.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1205	1205	1205	1205	1205	
5°	1187	1187	1188	1181	1187	111
15°	1044	1049	1052	1045	1039	291
25°	779	791	803	789	773	350
35°	337	398	479	392	340	215
45°	74	92	135	90	74	62
55°	11	12	13	12	10	11
65°	3	4	3	4	3	3
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P843320

CATALOG NUMBER: LD4C10DE010B35 EU4C10B35 4LBSQLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1205.2	1205.2	1205.2	1205.2	1205.2	1205.2	1205.2	1205.2	1205.2	1205.2	1205.2
2.5°	1196.0	1204.4	1202.1	1207.5	1207.5	1201.4	1202.8	1205.2	1208.2	1210.6	1192.2
5°	1186.8	1194.4	1187.5	1195.2	1190.6	1183.7	1195.2	1189.1	1192.9	1188.4	1191.4
7.5°	1162.2	1174.5	1160.8	1170.0	1166.9	1163.1	1167.6	1166.1	1168.4	1164.6	1156.2
10°	1126.3	1136.2	1127.1	1140.0	1134.0	1130.1	1134.0	1137.8	1137.0	1133.1	1137.8
12.5°	1084.9	1096.4	1091.8	1099.5	1092.6	1092.6	1101.8	1099.5	1100.3	1097.2	1102.6
15°	1044.4	1052.8	1045.9	1055.8	1052.8	1044.4	1048.2	1048.2	1054.4	1052.0	1045.9
17.5°	993.9	1000.7	993.0	995.3	992.3	990.8	1006.9	996.1	1002.2	997.7	998.4
20°	927.2	930.3	928.0	934.1	930.3	934.8	933.4	931.8	931.8	934.1	928.7
22.5°	859.9	859.9	862.2	863.7	866.7	862.2	871.3	863.7	864.4	869.8	868.3
25°	778.7	776.4	781.8	789.4	792.5	788.7	800.8	794.7	799.4	803.2	794.7
27.5°	680.0	680.0	685.2	698.2	700.6	705.1	722.0	722.0	728.2	722.8	728.9
30°	565.8	574.3	581.2	598.0	603.4	613.3	630.9	639.3	653.1	650.8	647.7
32.5°	448.6	460.2	460.9	478.6	493.1	509.9	533.7	553.6	563.5	570.4	562.8
35°	336.9	343.8	349.9	362.1	386.7	408.9	430.4	456.4	473.9	478.6	471.6
37.5°	246.5	248.1	254.3	265.7	284.1	305.6	331.6	359.8	378.2	385.1	377.5
40°	170.0	171.5	174.6	184.6	199.9	215.1	235.9	264.9	281.8	295.5	285.6
42.5°	114.1	115.6	118.7	126.3	134.7	149.3	165.4	183.7	199.9	205.9	200.6
45°	74.2	74.2	75.8	81.2	85.8	97.2	108.7	120.1	130.9	134.7	130.9
47.5°	43.7	44.4	45.9	49.8	55.1	59.8	68.1	75.8	78.9	82.0	80.4
50°	25.3	25.3	27.6	29.8	33.6	36.7	39.8	42.8	44.4	45.9	44.4
52.5°	13.7	14.6	15.3	16.1	17.7	20.7	23.0	23.0	23.8	24.5	23.8
55°	10.7	10.7	10.7	10.7	11.5	11.5	11.5	12.3	12.3	13.0	12.3
57.5°	7.6	7.6	7.6	8.5	8.5	8.5	7.6	7.6	7.6	7.6	7.6
60°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	5.4	5.4	5.4	5.4
62.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
65°	3.1	3.1	3.8	3.8	3.8	3.8	3.8	3.1	3.1	3.1	3.1
67.5°	2.3	2.3	2.3	2.3	3.1	3.1	2.3	2.3	2.3	2.3	2.3
70°	1.5	1.5	1.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
75°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	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°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P843320

CATALOG NUMBER: LD4C10DE010B35 EU4C10B35 4LBSQLI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1205.2	1205.2	1205.2	1205.2	1205.2	1205.2	1205.2	1205.2
2.5°	1205.2	1192.2	1193.6	1200.5	1196.7	1200.5	1199.8	1199.8
5°	1192.2	1188.4	1182.2	1179.9	1184.4	1194.4	1192.9	1186.8
7.5°	1167.6	1157.7	1164.6	1167.6	1163.8	1170.0	1173.0	1160.0
10°	1138.5	1134.7	1133.1	1134.7	1133.1	1139.3	1131.7	1131.7
12.5°	1097.2	1091.1	1091.1	1100.3	1094.9	1090.3	1096.4	1095.7
15°	1055.8	1043.6	1043.6	1046.6	1049.0	1045.9	1046.6	1039.0
17.5°	994.6	990.8	985.4	993.9	996.1	993.0	995.3	991.5
20°	937.2	937.2	927.2	931.0	934.1	936.4	937.9	931.8
22.5°	863.7	865.3	858.3	866.0	868.3	860.6	862.2	860.6
25°	796.3	795.6	790.2	787.1	788.7	785.6	784.8	773.3
27.5°	722.0	714.3	702.9	706.0	693.0	682.2	682.2	664.6
30°	641.7	628.7	613.3	598.0	586.5	574.3	567.3	557.4
32.5°	547.4	529.9	510.7	490.0	477.0	458.7	448.6	454.0
35°	454.0	428.0	402.0	381.3	361.4	350.7	338.4	339.9
37.5°	363.7	326.9	304.0	281.8	264.9	251.2	245.8	244.2
40°	265.7	236.6	213.6	197.6	186.0	175.4	169.2	166.9
42.5°	183.7	163.1	144.7	131.7	124.1	117.2	114.1	113.3
45°	119.4	107.2	95.0	85.8	79.6	75.1	74.2	73.5
47.5°	75.1	68.9	61.2	54.4	49.0	45.9	43.7	43.7
50°	42.8	40.6	36.7	32.9	29.8	28.3	26.0	25.3
52.5°	23.0	23.0	21.5	18.4	16.1	14.6	14.6	13.7
55°	12.3	12.3	11.5	11.5	10.7	10.7	10.7	9.9
57.5°	7.6	7.6	8.5	8.5	7.6	7.6	7.6	7.6
60°	5.4	6.1	6.1	6.1	6.1	6.1	6.1	6.1
62.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
65°	3.1	3.8	3.8	3.8	3.8	3.1	3.1	3.1
67.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
70°	2.3	2.3	2.3	2.3	2.3	1.5	1.5	1.5
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
75°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)