

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: P843334

Luminaire Tested: **LD4C10DE010B40 EU4C10B40 4LBSQLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843334
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: LD4C10DE010B40 EU4C10B40 4LBSQLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

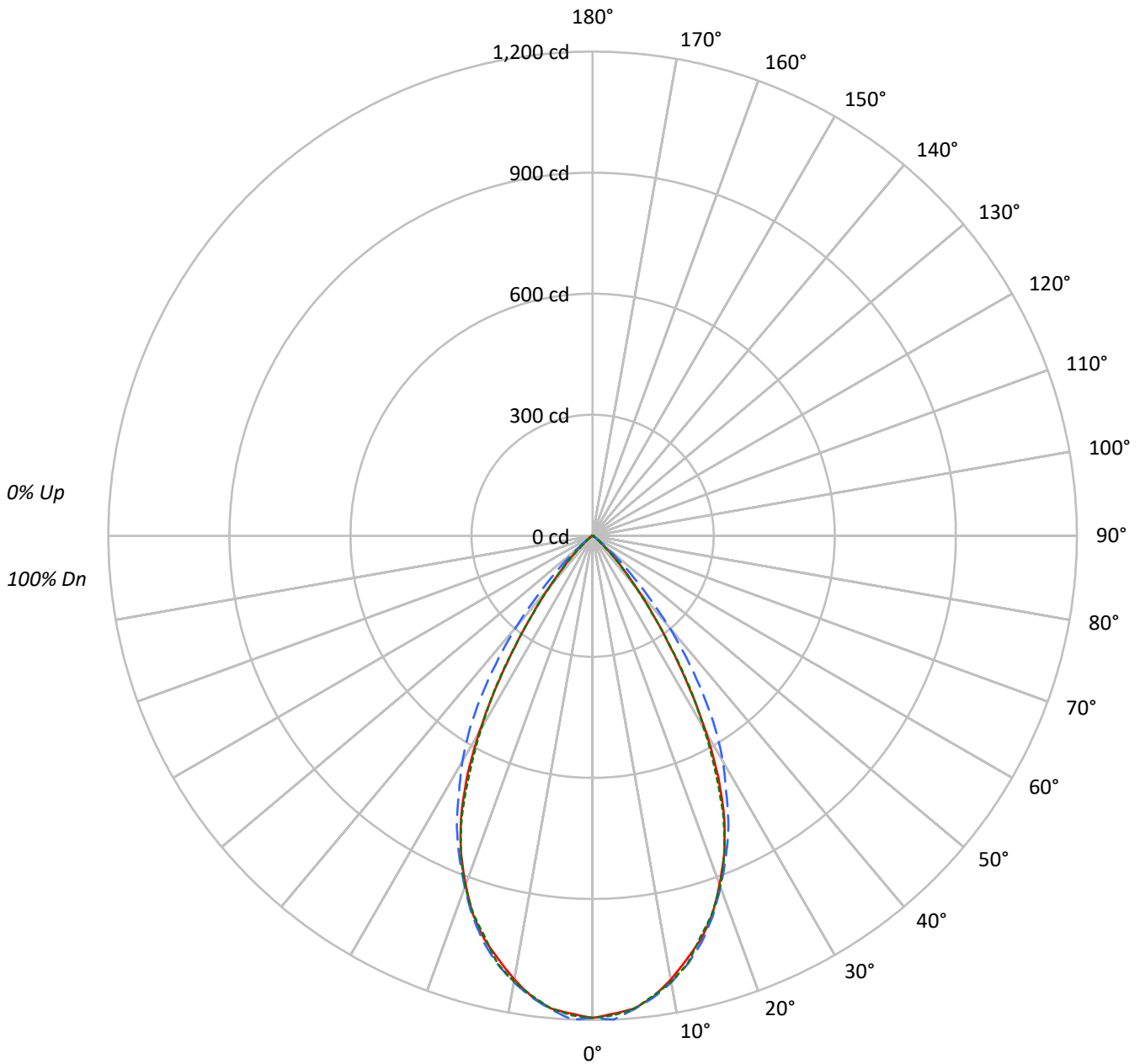
Lumens per Lamp: N/A
Luminaire Lumens: 1103.0 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.9 / 0.94
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	115285	115285	115285
5°	113962	114108	113962
10°	109402	110078	109921
15°	103429	104188	102899
20°	94395	95093	94857
25°	82201	84777	81626
30°	62504	71897	61568
35°	39342	55892	39707
40°	21224	36918	20846
45°	10043	18231	9948
50°	3768	6845	3768
55°	1783	2170	1649
60°	1158	1023	1158
65°	708	708	708
70°	423	649	423
75°	261	261	261
80°	389	389	389
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.8	10.0
10°-20°	290.3	26.3
20°-30°	354.7	32.2
30°-40°	248.1	22.5
40°-50°	81.3	7.4
50°-60°	12.9	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°	755.8	68.5
0°-40°	1003.8	91.0
0°-60°	1098.1	99.6
0°-90°	1103.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1103.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1195	1195	1195	1195	1195	
5°	1177	1177	1178	1171	1177	110
15°	1035	1040	1043	1036	1030	289
25°	772	784	796	782	767	347
35°	334	394	474	388	337	213
45°	74	91	134	90	73	62
55°	11	11	13	11	10	10
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	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1194.8	1194.8	1194.8	1194.8	1194.8	1194.8	1194.8	1194.8	1194.8	1194.8	1194.8
2.5°	1185.7	1194.1	1191.8	1197.1	1197.1	1191.1	1192.6	1194.8	1197.9	1200.2	1181.9
5°	1176.6	1184.2	1177.4	1185.0	1180.4	1173.6	1185.0	1178.8	1182.6	1178.1	1181.2
7.5°	1152.3	1164.5	1150.8	1159.9	1156.9	1153.0	1157.7	1156.1	1158.4	1154.6	1146.3
10°	1116.6	1126.5	1117.4	1130.3	1124.3	1120.5	1124.3	1128.1	1127.3	1123.5	1128.1
12.5°	1075.7	1087.0	1082.5	1090.1	1083.2	1083.2	1092.3	1090.1	1090.8	1087.8	1093.1
15°	1035.4	1043.8	1036.9	1046.8	1043.8	1035.4	1039.2	1039.2	1045.3	1043.0	1036.9
17.5°	985.3	992.2	984.6	986.9	983.8	982.3	998.2	987.6	993.6	989.1	989.9
20°	919.3	922.4	920.0	926.1	922.4	926.9	925.3	923.8	923.8	926.1	920.8
22.5°	852.5	852.5	854.8	856.3	859.3	854.8	863.9	856.3	857.0	862.4	860.8
25°	772.1	769.7	775.0	782.6	785.7	781.9	794.1	787.9	792.5	796.3	787.9
27.5°	674.1	674.1	679.4	692.3	694.5	699.1	715.8	715.8	721.9	716.7	722.7
30°	561.0	569.3	576.2	592.8	598.2	608.0	625.5	633.8	647.5	645.3	642.2
32.5°	444.8	456.3	457.0	474.5	488.8	505.5	529.1	548.8	558.7	565.5	557.9
35°	334.0	340.9	346.9	359.1	383.4	405.4	426.6	452.5	469.9	474.5	467.6
37.5°	244.4	246.0	252.0	263.5	281.6	302.9	328.7	356.7	375.0	381.8	374.2
40°	168.5	170.1	173.0	183.0	198.1	213.3	233.8	262.6	279.3	293.1	283.1
42.5°	113.1	114.6	117.6	125.2	133.6	148.0	163.9	182.2	198.1	204.2	198.8
45°	73.6	73.6	75.2	80.5	85.0	96.4	107.8	119.2	129.8	133.6	129.8
47.5°	43.3	44.0	45.6	49.4	54.7	59.2	67.6	75.2	78.2	81.2	79.7
50°	25.1	25.1	27.3	29.6	33.4	36.4	39.4	42.5	44.0	45.6	44.0
52.5°	13.6	14.4	15.2	16.0	17.5	20.5	22.7	22.7	23.6	24.3	23.6
55°	10.6	10.6	10.6	10.6	11.4	11.4	11.4	12.2	12.2	12.9	12.2
57.5°	7.6	7.6	7.6	8.4	8.4	8.4	7.6	7.6	7.6	7.6	7.6
60°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.3	5.3	5.3	5.3
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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1194.8	1194.8	1194.8	1194.8	1194.8	1194.8	1194.8	1194.8
2.5°	1194.8	1181.9	1183.5	1190.3	1186.5	1190.3	1189.5	1189.5
5°	1181.9	1178.1	1172.1	1169.7	1174.3	1184.2	1182.6	1176.6
7.5°	1157.7	1147.7	1154.6	1157.7	1153.9	1159.9	1163.0	1150.1
10°	1128.8	1125.0	1123.5	1125.0	1123.5	1129.6	1121.9	1121.9
12.5°	1087.8	1081.7	1081.7	1090.8	1085.6	1081.0	1087.0	1086.3
15°	1046.8	1034.7	1034.7	1037.6	1040.0	1036.9	1037.6	1030.1
17.5°	986.0	982.3	976.9	985.3	987.6	984.6	986.9	983.1
20°	929.1	929.1	919.3	923.1	926.1	928.4	929.9	923.8
22.5°	856.3	857.8	851.0	858.6	860.8	853.3	854.8	853.3
25°	789.4	788.7	783.4	780.3	781.9	778.8	778.1	766.7
27.5°	715.8	708.2	696.9	699.9	687.0	676.4	676.4	658.9
30°	636.2	623.3	608.0	592.8	581.5	569.3	562.4	552.6
32.5°	542.8	525.3	506.3	485.9	473.0	454.7	444.8	450.1
35°	450.1	424.3	398.5	378.1	358.3	347.6	335.5	337.1
37.5°	360.5	324.2	301.4	279.3	262.6	249.0	243.7	242.2
40°	263.5	234.6	211.8	195.9	184.5	173.9	167.7	165.5
42.5°	182.2	161.7	143.4	130.6	123.0	116.1	113.1	112.3
45°	118.5	106.3	94.1	85.0	79.0	74.5	73.6	72.9
47.5°	74.5	68.3	60.7	53.9	48.5	45.6	43.3	43.3
50°	42.5	40.2	36.4	32.7	29.6	28.1	25.8	25.1
52.5°	22.7	22.7	21.3	18.2	16.0	14.4	14.4	13.6
55°	12.2	12.2	11.4	11.4	10.6	10.6	10.6	9.8
57.5°	7.6	7.6	8.4	8.4	7.6	7.6	7.6	7.6
60°	5.3	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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)