

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: FAIL-SAFE

Report Number: P556264

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-93-88-EDD-90**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P556264
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-1HI-35-UNV-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

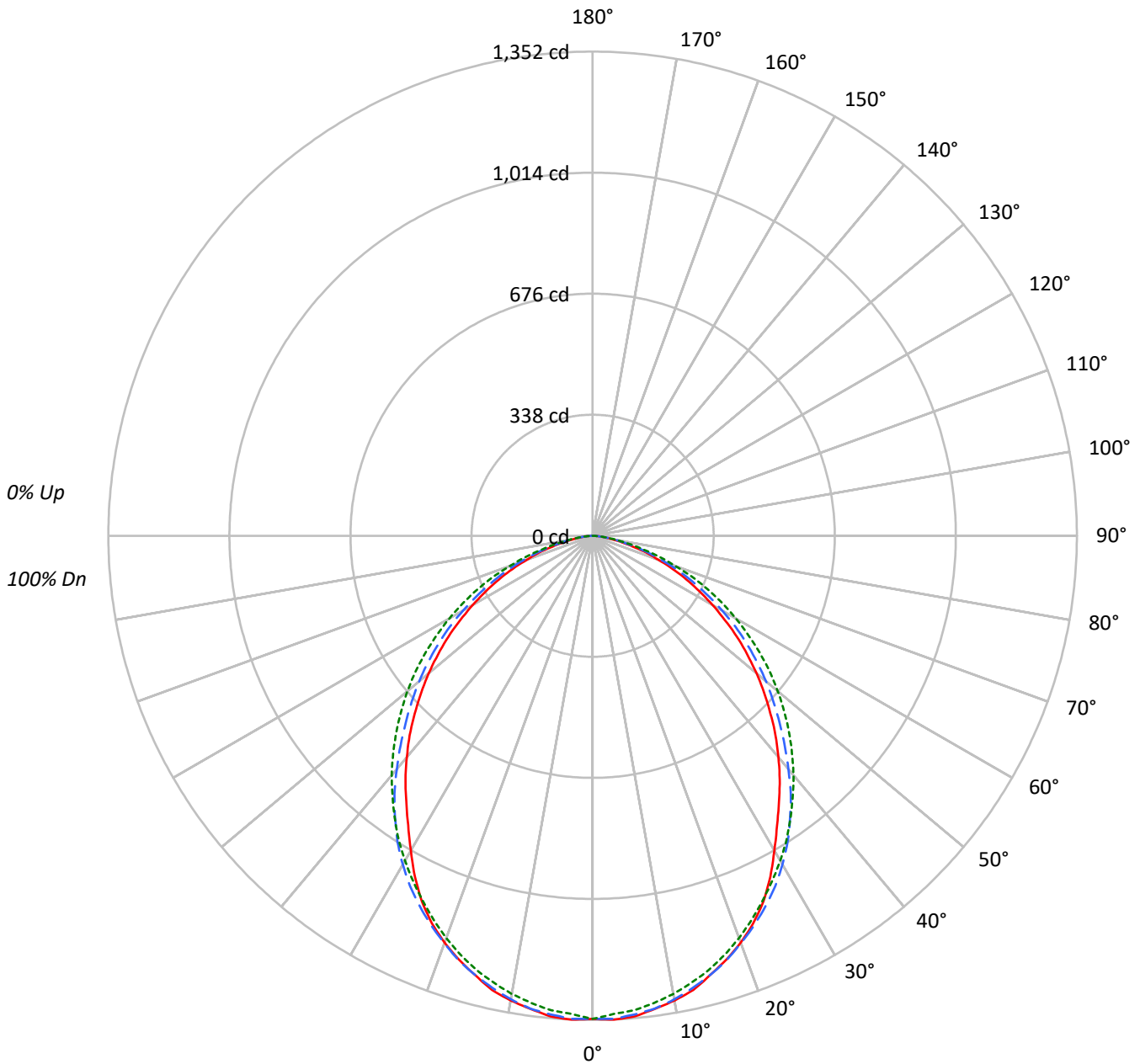
Lumens per Lamp: N/A
Luminaire Lumens: 3119.0 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (A_{in}): 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									
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3630	3630	3630
5°	3639	3624	3593
10°	3601	3591	3550
15°	3537	3537	3497
20°	3462	3466	3422
25°	3348	3390	3336
30°	3153	3294	3254
35°	2979	3158	3163
40°	2834	2987	3066
45°	2672	2806	2950
50°	2501	2645	2825
55°	2307	2460	2672
60°	2078	2245	2485
65°	1834	1996	2260
70°	1529	1700	1921
75°	1202	1358	1503
80°	859	956	1060
85°	559	559	528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.0	4.1
10°-20°	356.8	11.4
20°-30°	521.4	16.7
30°-40°	591.8	19.0
40°-50°	571.3	18.3
50°-60°	471.3	15.1
60°-70°	313.8	10.1
70°-80°	140.4	4.5
80°-90°	25.1	0.8
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°	1005.2	32.2
0°-40°	1597.0	51.2
0°-60°	2639.6	84.6
0°-90°	3119.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3119.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1349	1349	1349	1349	1349	
5°	1347	1347	1342	1334	1330	128
15°	1270	1273	1270	1264	1255	358
25°	1128	1136	1142	1133	1124	516
35°	907	919	961	966	963	568
45°	702	714	737	771	775	542
55°	492	500	524	553	570	439
65°	288	296	314	336	355	286
75°	116	122	131	137	145	126
85°	18	18	18	17	17	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1348.9	1348.9	1348.9	1348.9	1348.9
2.5°	1352.5	1353.0	1349.9	1341.6	1336.5
5°	1347.3	1346.8	1341.6	1334.4	1330.2
7.5°	1332.3	1333.3	1331.8	1321.4	1315.7
10°	1317.8	1318.3	1314.2	1305.9	1299.1
12.5°	1299.1	1298.6	1292.9	1288.8	1277.9
15°	1269.6	1272.7	1269.6	1263.9	1255.1
17.5°	1241.1	1241.1	1243.2	1233.3	1226.6
20°	1209.0	1210.5	1210.5	1202.8	1195.0
22.5°	1171.7	1176.3	1177.9	1169.6	1160.3
25°	1127.6	1136.4	1141.6	1133.3	1123.5
27.5°	1074.2	1087.7	1103.3	1097.0	1086.2
30°	1014.6	1034.3	1060.2	1055.1	1047.3
32.5°	958.2	977.9	1013.6	1011.5	1007.4
35°	906.9	919.3	961.3	966.5	962.8
37.5°	858.1	869.5	908.9	920.8	917.7
40°	806.8	819.3	850.4	871.6	872.7
42.5°	756.1	768.0	793.4	823.9	823.9
45°	702.2	714.1	737.4	771.1	775.2
47.5°	649.3	661.7	684.5	718.2	725.0
50°	597.5	608.9	631.7	664.3	674.7
52.5°	543.6	556.0	578.3	608.4	623.4
55°	491.8	500.1	524.4	553.4	569.5
57.5°	437.9	445.7	473.1	498.0	514.6
60°	386.1	395.9	417.2	442.5	461.7
62.5°	336.3	346.7	364.8	387.1	408.9
65°	288.1	295.9	313.5	335.8	355.0
67.5°	241.5	248.2	265.8	281.4	301.6
70°	194.3	203.1	216.1	231.1	244.1
72.5°	156.5	160.1	171.0	181.9	195.4
75°	115.6	121.8	130.6	136.8	144.6
77.5°	82.9	86.5	91.7	96.9	104.2
80°	55.4	57.0	61.7	62.7	68.4
82.5°	33.7	34.7	35.8	36.3	38.3
85°	18.1	18.1	18.1	17.1	17.1
87.5°	10.4	10.4	8.8	7.3	5.2
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







(END OF REPORT)