

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: P556360

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-81-88-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: P556360
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-50-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

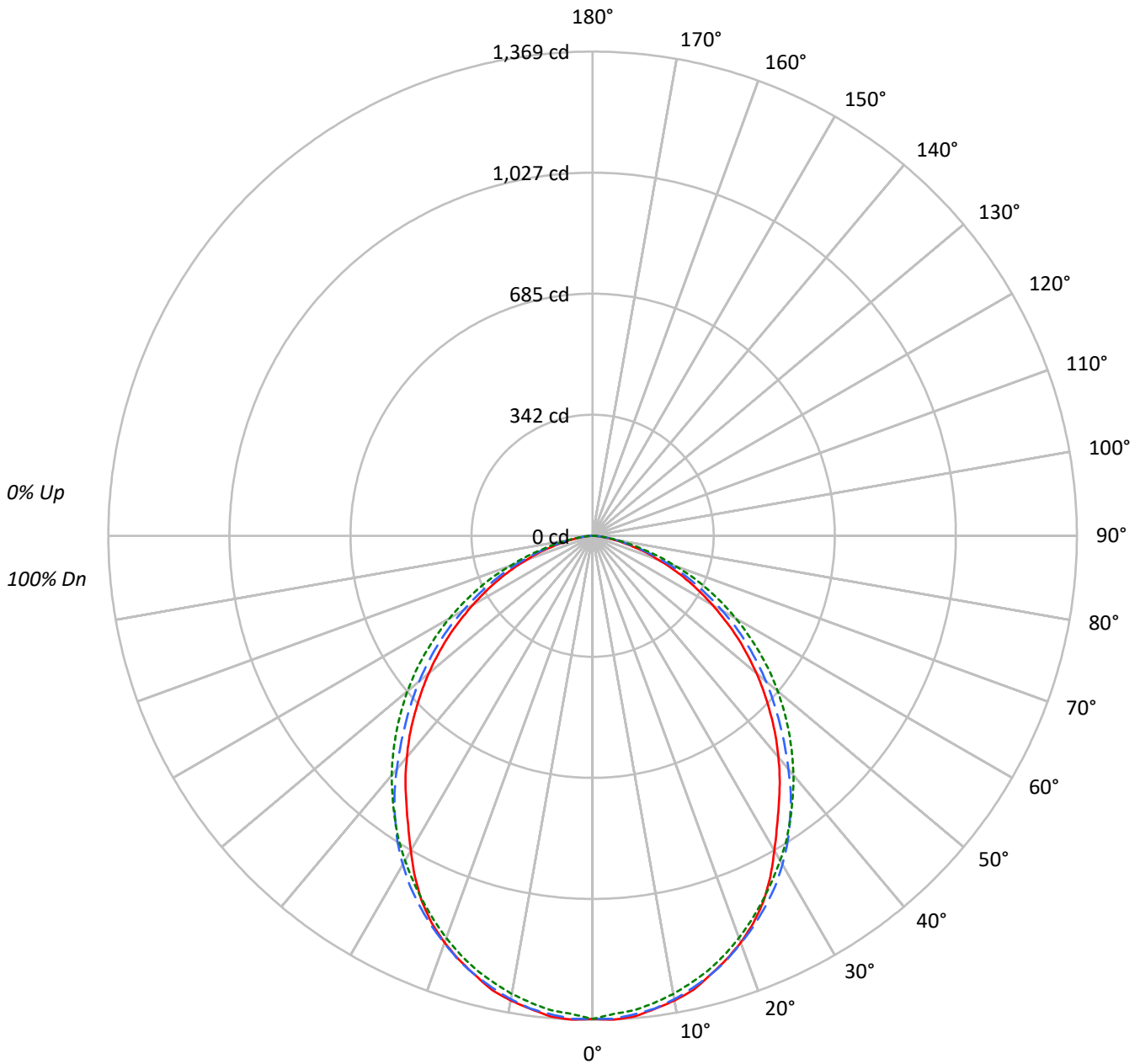
Lumens per Lamp: N/A
Luminaire Lumens: 3158.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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									
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°	3675	3675	3675
5°	3685	3669	3638
10°	3646	3636	3594
15°	3581	3581	3540
20°	3505	3510	3465
25°	3390	3432	3377
30°	3192	3336	3295
35°	3016	3197	3203
40°	2870	3025	3104
45°	2705	2841	2987
50°	2533	2678	2860
55°	2336	2491	2705
60°	2104	2273	2516
65°	1857	2021	2288
70°	1548	1721	1944
75°	1216	1375	1522
80°	869	967	1074
85°	568	568	534



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.6	4.1
10°-20°	361.2	11.4
20°-30°	527.9	16.7
30°-40°	599.2	19.0
40°-50°	578.4	18.3
50°-60°	477.2	15.1
60°-70°	317.8	10.1
70°-80°	142.2	4.5
80°-90°	25.4	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°	1017.7	32.2
0°-40°	1617.0	51.2
0°-60°	2672.6	84.6
0°-90°	3158.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3158.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1366	1366	1366	1366	1366	
5°	1364	1364	1358	1351	1347	129
15°	1286	1289	1286	1280	1271	362
25°	1142	1151	1156	1148	1138	523
35°	918	931	973	978	975	575
45°	711	723	747	781	785	549
55°	498	506	531	560	577	444
65°	292	300	317	340	359	289
75°	117	123	132	138	146	128
85°	18	18	18	17	17	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1365.8	1365.8	1365.8	1365.8	1365.8
2.5°	1369.4	1370.0	1366.8	1358.4	1353.2
5°	1364.2	1363.7	1358.4	1351.1	1346.9
7.5°	1349.0	1350.0	1348.4	1337.9	1332.2
10°	1334.3	1334.8	1330.6	1322.2	1315.4
12.5°	1315.4	1314.9	1309.1	1304.9	1293.9
15°	1285.5	1288.6	1285.5	1279.7	1270.8
17.5°	1256.6	1256.6	1258.7	1248.7	1241.9
20°	1224.1	1225.7	1225.7	1217.8	1209.9
22.5°	1186.3	1191.0	1192.6	1184.2	1174.8
25°	1141.7	1150.6	1155.9	1147.5	1137.5
27.5°	1087.7	1101.3	1117.1	1110.8	1099.7
30°	1027.3	1047.3	1073.5	1068.3	1060.4
32.5°	970.1	990.1	1026.3	1024.2	1020.0
35°	918.2	930.8	973.3	978.5	974.9
37.5°	868.9	880.4	920.3	932.4	929.2
40°	816.9	829.5	861.0	882.5	883.6
42.5°	765.5	777.6	803.3	834.2	834.2
45°	710.9	723.0	746.6	780.7	784.9
47.5°	657.4	670.0	693.1	727.2	734.0
50°	605.0	616.5	639.6	672.6	683.1
52.5°	550.4	563.0	585.5	616.0	631.2
55°	497.9	506.3	531.0	560.4	576.6
57.5°	443.4	451.2	479.0	504.2	521.0
60°	390.9	400.9	422.4	448.1	467.5
62.5°	340.5	351.0	369.4	391.9	414.0
65°	291.7	299.6	317.4	340.0	359.4
67.5°	244.5	251.3	269.2	284.9	305.4
70°	196.8	205.7	218.8	234.0	247.1
72.5°	158.5	162.1	173.1	184.2	197.8
75°	117.0	123.3	132.2	138.5	146.4
77.5°	83.9	87.6	92.9	98.1	105.5
80°	56.1	57.7	62.4	63.5	69.3
82.5°	34.1	35.2	36.2	36.7	38.8
85°	18.4	18.4	18.4	17.3	17.3
87.5°	10.5	10.5	8.9	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)