

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: P556737

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-84-EDD**

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: P556737
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-LD4-1STD-35-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

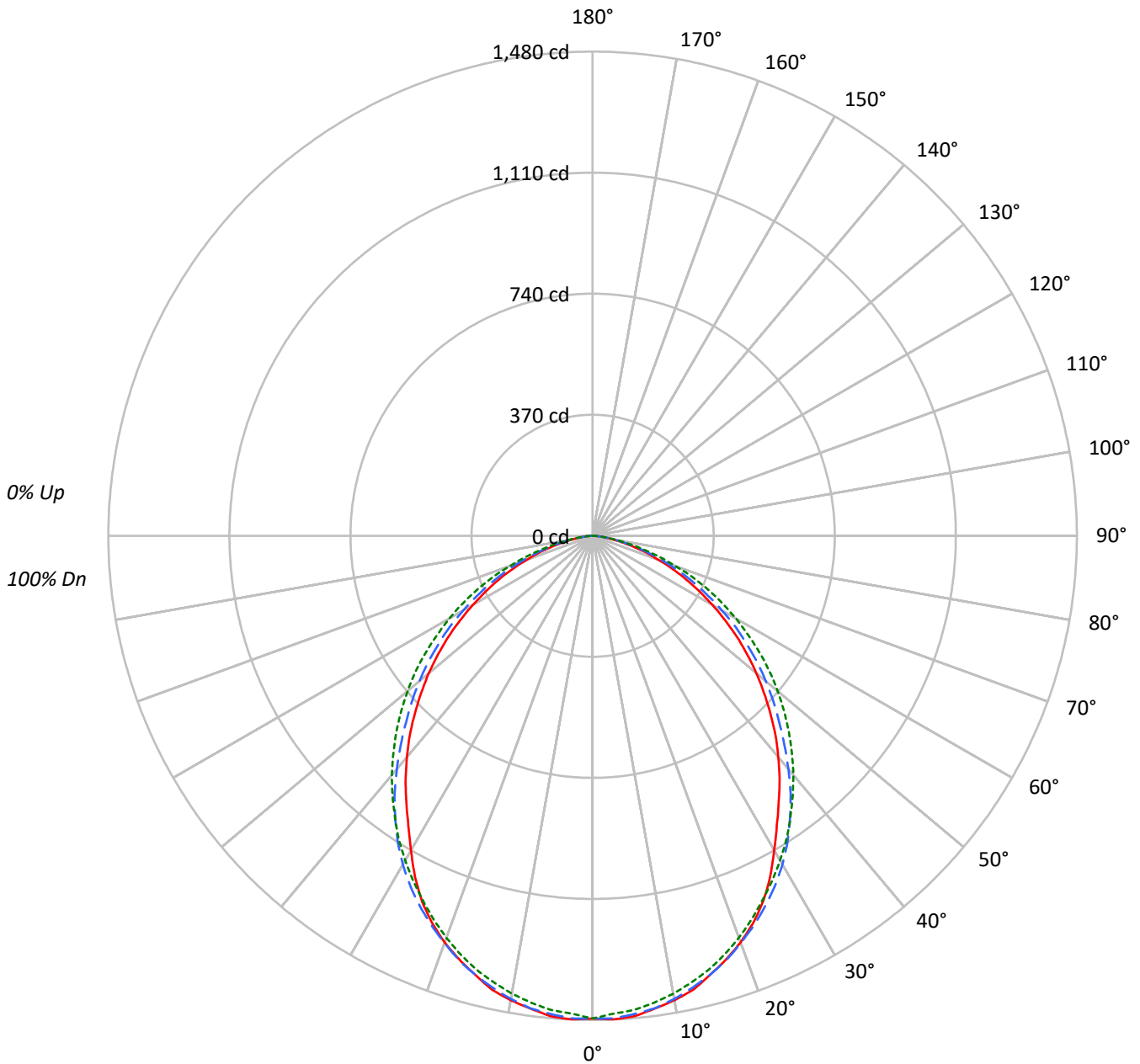
Lumens per Lamp: N/A
Luminaire Lumens: 3412.0 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3971	3971	3971
5°	3981	3965	3931
10°	3939	3928	3883
15°	3869	3869	3825
20°	3787	3792	3743
25°	3662	3708	3649
30°	3449	3604	3560
35°	3259	3455	3460
40°	3100	3268	3353
45°	2923	3070	3228
50°	2736	2893	3090
55°	2524	2692	2923
60°	2273	2456	2718
65°	2007	2184	2472
70°	1673	1860	2101
75°	1314	1486	1645
80°	941	1046	1159
85°	611	611	577



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.9	4.1
10°-20°	390.3	11.4
20°-30°	570.4	16.7
30°-40°	647.4	19.0
40°-50°	625.0	18.3
50°-60°	515.6	15.1
60°-70°	343.3	10.1
70°-80°	153.6	4.5
80°-90°	27.5	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°	1099.6	32.2
0°-40°	1747.0	51.2
0°-60°	2887.5	84.6
0°-90°	3412.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3412.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1476	1476	1476	1476	1476	
5°	1474	1473	1468	1460	1455	140
15°	1389	1392	1389	1383	1373	392
25°	1234	1243	1249	1240	1229	565
35°	992	1006	1052	1057	1053	622
45°	768	781	807	844	848	593
55°	538	547	574	605	623	480
65°	315	324	343	367	388	313
75°	126	133	143	150	158	138
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1475.6	1475.6	1475.6	1475.6	1475.6
2.5°	1479.6	1480.1	1476.7	1467.7	1462.0
5°	1473.9	1473.3	1467.7	1459.7	1455.2
7.5°	1457.5	1458.6	1456.9	1445.6	1439.3
10°	1441.6	1442.2	1437.6	1428.6	1421.2
12.5°	1421.2	1420.6	1414.4	1409.8	1397.9
15°	1388.9	1392.3	1388.9	1382.6	1373.0
17.5°	1357.7	1357.7	1360.0	1349.2	1341.8
20°	1322.5	1324.2	1324.2	1315.7	1307.2
22.5°	1281.7	1286.8	1288.5	1279.5	1269.3
25°	1233.5	1243.2	1248.8	1239.8	1229.0
27.5°	1175.2	1189.9	1206.9	1200.1	1188.2
30°	1110.0	1131.5	1159.8	1154.2	1145.7
32.5°	1048.2	1069.7	1108.8	1106.6	1102.0
35°	992.0	1005.7	1051.6	1057.2	1053.3
37.5°	938.8	951.2	994.3	1007.4	1004.0
40°	882.6	896.2	930.3	953.5	954.6
42.5°	827.1	840.1	867.9	901.3	901.3
45°	768.1	781.2	806.7	843.5	848.1
47.5°	710.3	723.9	748.9	785.7	793.1
50°	653.6	666.1	691.0	726.7	738.1
52.5°	594.7	608.3	632.6	665.5	682.0
55°	538.0	547.0	573.7	605.4	623.0
57.5°	479.0	487.5	517.6	544.8	562.9
60°	422.3	433.1	456.3	484.1	505.1
62.5°	367.9	379.2	399.1	423.5	447.3
65°	315.2	323.7	343.0	367.3	388.3
67.5°	264.2	271.5	290.8	307.8	329.9
70°	212.6	222.2	236.4	252.8	267.0
72.5°	171.2	175.2	187.1	199.0	213.7
75°	126.4	133.2	142.9	149.7	158.2
77.5°	90.7	94.7	100.3	106.0	113.9
80°	60.7	62.4	67.5	68.6	74.8
82.5°	36.8	38.0	39.1	39.7	41.9
85°	19.8	19.8	19.8	18.7	18.7
87.5°	11.3	11.3	9.6	7.9	5.7
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)