

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: P556869

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-81-86-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: P556869
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-50-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

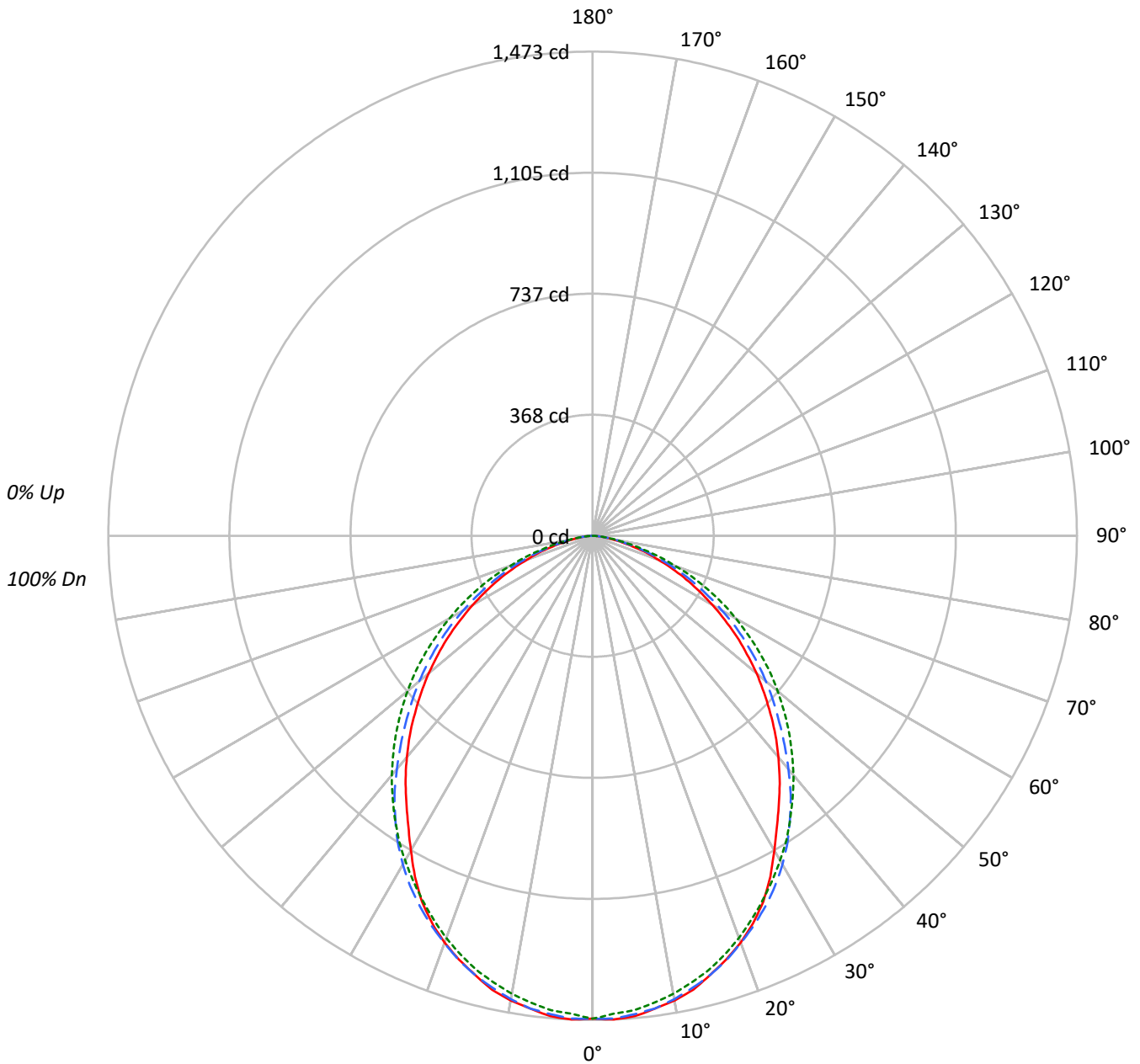
Lumens per Lamp: N/A
Luminaire Lumens: 3397.0 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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°	3953	3953	3953
5°	3964	3947	3914
10°	3922	3911	3866
15°	3852	3852	3808
20°	3771	3775	3727
25°	3646	3692	3633
30°	3434	3588	3544
35°	3245	3439	3445
40°	3087	3254	3339
45°	2911	3056	3213
50°	2724	2880	3076
55°	2513	2680	2910
60°	2263	2445	2707
65°	1998	2174	2462
70°	1665	1852	2091
75°	1309	1478	1638
80°	936	1041	1155
85°	611	611	574



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.3	4.1
10°-20°	388.6	11.4
20°-30°	567.9	16.7
30°-40°	644.6	19.0
40°-50°	622.2	18.3
50°-60°	513.3	15.1
60°-70°	341.8	10.1
70°-80°	153.0	4.5
80°-90°	27.4	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°	1094.8	32.2
0°-40°	1739.3	51.2
0°-60°	2874.9	84.6
0°-90°	3397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3397.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1469	1469	1469	1469	1469	
5°	1467	1467	1461	1453	1449	139
15°	1383	1386	1383	1377	1367	390
25°	1228	1238	1243	1234	1224	562
35°	988	1001	1047	1053	1049	619
45°	765	778	803	840	844	590
55°	536	545	571	603	620	478
65°	314	322	342	366	387	311
75°	126	133	142	149	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°	1469.1	1469.1	1469.1	1469.1	1469.1
2.5°	1473.1	1473.6	1470.2	1461.2	1455.6
5°	1467.4	1466.9	1461.2	1453.3	1448.8
7.5°	1451.1	1452.2	1450.5	1439.2	1433.0
10°	1435.3	1435.8	1431.3	1422.3	1414.9
12.5°	1414.9	1414.4	1408.2	1403.6	1391.8
15°	1382.8	1386.1	1382.8	1376.6	1367.0
17.5°	1351.7	1351.7	1354.0	1343.3	1335.9
20°	1316.7	1318.4	1318.4	1310.0	1301.5
22.5°	1276.1	1281.2	1282.9	1273.8	1263.7
25°	1228.1	1237.7	1243.4	1234.3	1223.6
27.5°	1170.0	1184.7	1201.6	1194.8	1183.0
30°	1105.1	1126.5	1154.7	1149.1	1140.6
32.5°	1043.6	1065.0	1104.0	1101.7	1097.2
35°	987.7	1001.2	1046.9	1052.6	1048.6
37.5°	934.6	947.1	989.9	1002.9	999.5
40°	878.8	892.3	926.2	949.3	950.4
42.5°	823.4	836.4	864.1	897.4	897.4
45°	764.8	777.7	803.1	839.8	844.3
47.5°	707.2	720.7	745.6	782.2	789.6
50°	650.7	663.2	688.0	723.6	734.8
52.5°	592.0	605.6	629.9	662.6	679.0
55°	535.6	544.6	571.2	602.8	620.3
57.5°	476.9	485.4	515.3	542.4	560.4
60°	420.5	431.2	454.3	482.0	502.9
62.5°	366.3	377.6	397.3	421.6	445.3
65°	313.8	322.3	341.5	365.7	386.6
67.5°	263.0	270.3	289.5	306.5	328.5
70°	211.6	221.2	235.4	251.7	265.8
72.5°	170.4	174.4	186.2	198.1	212.8
75°	125.9	132.6	142.2	149.0	157.5
77.5°	90.3	94.3	99.9	105.5	113.4
80°	60.4	62.1	67.2	68.3	74.5
82.5°	36.7	37.8	38.9	39.5	41.8
85°	19.8	19.8	19.8	18.6	18.6
87.5°	11.3	11.3	9.6	7.9	5.6
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)