

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: P556807

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-81-87-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: P556807
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-40-UNV-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

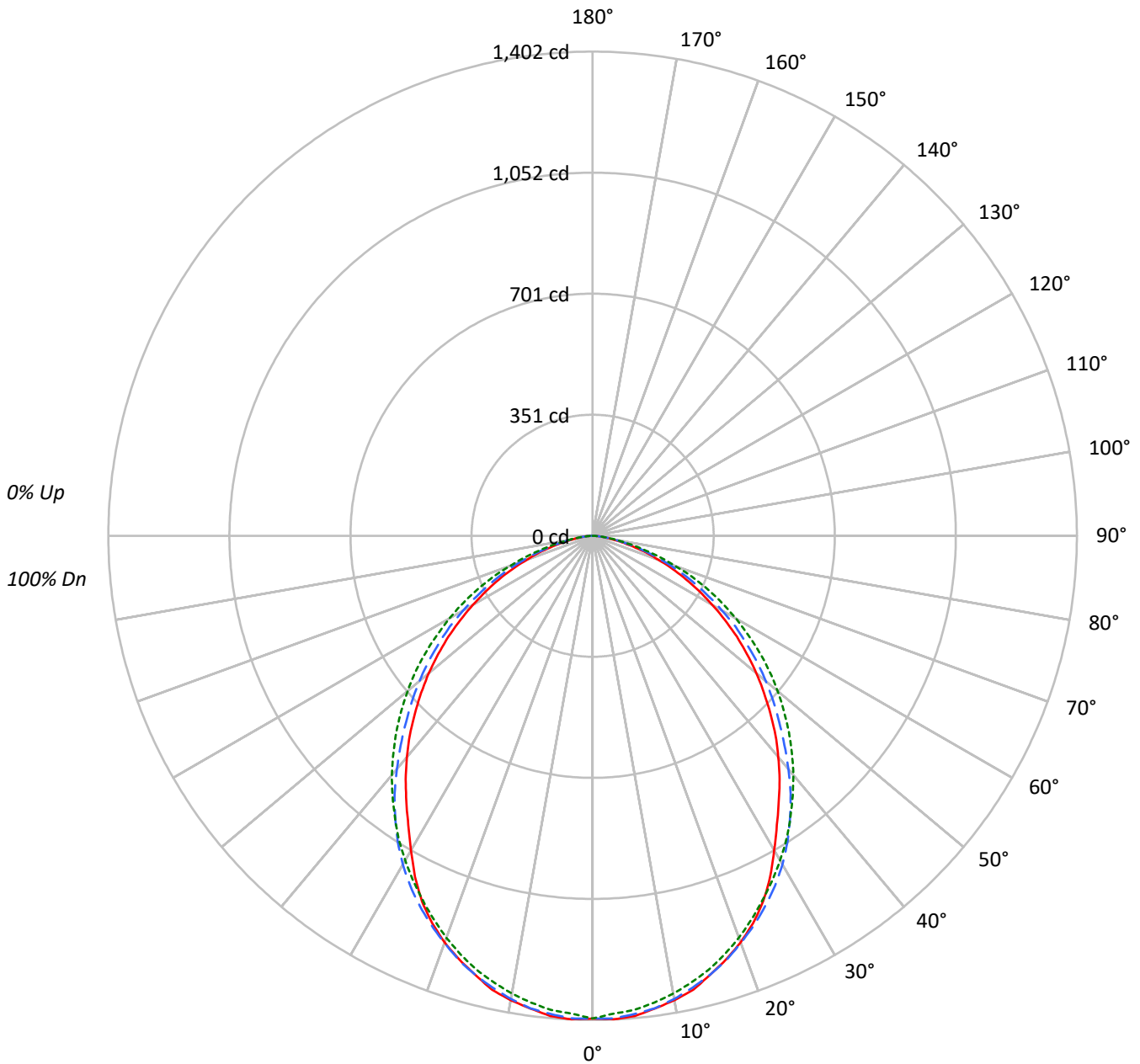
Lumens per Lamp: N/A
Luminaire Lumens: 3232.0 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3761	3761	3761
5°	3771	3755	3723
10°	3731	3721	3678
15°	3665	3665	3623
20°	3588	3592	3546
25°	3469	3513	3457
30°	3267	3414	3372
35°	3087	3272	3278
40°	2937	3095	3177
45°	2769	2908	3057
50°	2592	2740	2927
55°	2391	2549	2769
60°	2153	2327	2575
65°	1901	2069	2342
70°	1585	1762	1990
75°	1245	1407	1557
80°	891	990	1099
85°	580	580	546



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.6	4.1
10°-20°	369.7	11.4
20°-30°	540.3	16.7
30°-40°	613.3	19.0
40°-50°	592.0	18.3
50°-60°	488.4	15.1
60°-70°	325.2	10.1
70°-80°	145.5	4.5
80°-90°	26.0	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°	1041.6	32.2
0°-40°	1654.9	51.2
0°-60°	2735.2	84.6
0°-90°	3232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3232.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1398	1398	1398	1398	1398	
5°	1396	1396	1390	1383	1378	132
15°	1316	1319	1316	1310	1301	371
25°	1168	1178	1183	1174	1164	535
35°	940	953	996	1002	998	589
45°	728	740	764	799	803	561
55°	510	518	543	574	590	455
65°	299	307	325	348	368	296
75°	120	126	135	142	150	131
85°	19	19	19	18	18	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1397.8	1397.8	1397.8	1397.8	1397.8
2.5°	1401.5	1402.1	1398.8	1390.2	1384.9
5°	1396.1	1395.6	1390.2	1382.7	1378.4
7.5°	1380.6	1381.6	1380.0	1369.3	1363.4
10°	1365.5	1366.1	1361.8	1353.2	1346.2
12.5°	1346.2	1345.7	1339.8	1335.5	1324.2
15°	1315.6	1318.8	1315.6	1309.7	1300.6
17.5°	1286.1	1286.1	1288.2	1278.0	1271.0
20°	1252.8	1254.4	1254.4	1246.3	1238.3
22.5°	1214.1	1218.9	1220.6	1212.0	1202.3
25°	1168.5	1177.6	1183.0	1174.4	1164.2
27.5°	1113.2	1127.1	1143.2	1136.8	1125.5
30°	1051.4	1071.8	1098.7	1093.3	1085.2
32.5°	992.9	1013.3	1050.3	1048.2	1043.9
35°	939.7	952.6	996.1	1001.5	997.7
37.5°	889.2	901.1	941.9	954.2	951.0
40°	836.1	849.0	881.2	903.2	904.3
42.5°	783.5	795.8	822.1	853.8	853.8
45°	727.6	740.0	764.1	799.0	803.3
47.5°	672.8	685.7	709.3	744.3	751.2
50°	619.1	631.0	654.6	688.4	699.1
52.5°	563.3	576.2	599.3	630.4	646.0
55°	509.6	518.2	543.4	573.5	590.1
57.5°	453.7	461.8	490.3	516.0	533.2
60°	400.0	410.3	432.3	458.6	478.4
62.5°	348.5	359.2	378.0	401.1	423.7
65°	298.6	306.6	324.9	348.0	367.8
67.5°	250.2	257.2	275.5	291.6	312.5
70°	201.4	210.5	223.9	239.5	252.9
72.5°	162.2	165.9	177.2	188.5	202.4
75°	119.7	126.2	135.3	141.8	149.8
77.5°	85.9	89.7	95.0	100.4	107.9
80°	57.5	59.1	63.9	65.0	70.9
82.5°	34.9	36.0	37.1	37.6	39.7
85°	18.8	18.8	18.8	17.7	17.7
87.5°	10.7	10.7	9.1	7.5	5.4
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)