

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: P556817

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-82-84-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: P556817
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-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

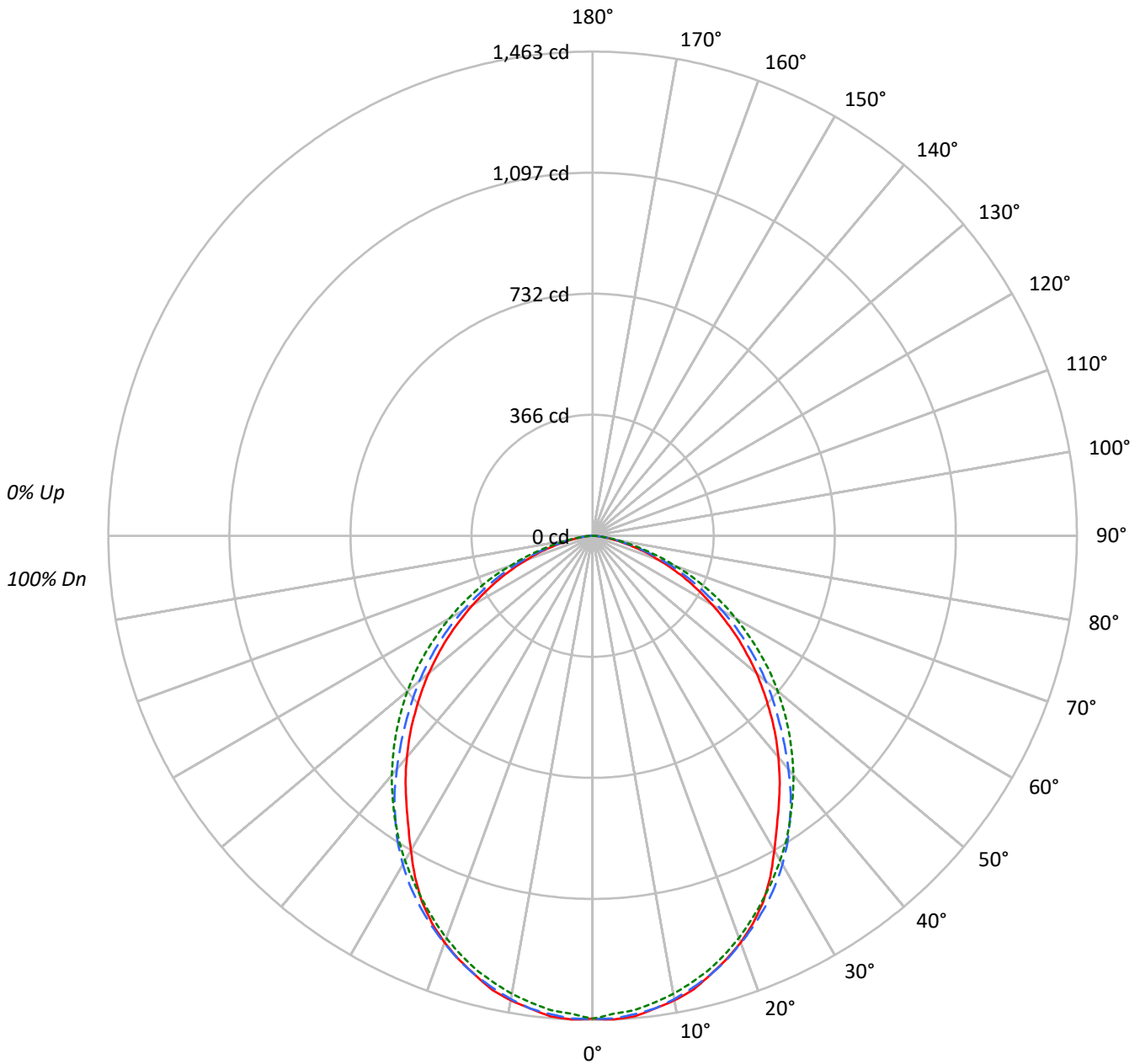
Lumens per Lamp: N/A
Luminaire Lumens: 3374.0 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3927	3927	3927
5°	3937	3920	3887
10°	3895	3885	3840
15°	3826	3826	3782
20°	3745	3750	3702
25°	3622	3667	3608
30°	3411	3564	3520
35°	3223	3416	3421
40°	3066	3231	3316
45°	2891	3036	3191
50°	2706	2861	3056
55°	2496	2662	2890
60°	2248	2429	2688
65°	1985	2159	2445
70°	1654	1840	2077
75°	1300	1469	1626
80°	930	1034	1147
85°	605	605	571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.4	4.1
10°-20°	386.0	11.4
20°-30°	564.0	16.7
30°-40°	640.2	19.0
40°-50°	618.0	18.3
50°-60°	509.8	15.1
60°-70°	339.5	10.1
70°-80°	151.9	4.5
80°-90°	27.2	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°	1087.3	32.2
0°-40°	1727.6	51.2
0°-60°	2855.4	84.6
0°-90°	3374.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3374.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1459	1459	1459	1459	1459	
5°	1458	1457	1451	1444	1439	138
15°	1373	1377	1373	1367	1358	387
25°	1220	1229	1235	1226	1215	559
35°	981	994	1040	1046	1042	615
45°	760	772	798	834	839	586
55°	532	541	567	599	616	475
65°	312	320	339	363	384	309
75°	125	132	141	148	156	137
85°	20	20	20	18	18	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1459.2	1459.2	1459.2	1459.2	1459.2
2.5°	1463.1	1463.7	1460.3	1451.3	1445.7
5°	1457.5	1456.9	1451.3	1443.5	1439.0
7.5°	1441.2	1442.4	1440.7	1429.5	1423.3
10°	1425.5	1426.1	1421.6	1412.6	1405.4
12.5°	1405.4	1404.8	1398.6	1394.1	1382.4
15°	1373.4	1376.8	1373.4	1367.2	1357.7
17.5°	1342.6	1342.6	1344.8	1334.2	1326.9
20°	1307.8	1309.5	1309.5	1301.1	1292.7
22.5°	1267.5	1272.5	1274.2	1265.2	1255.1
25°	1219.8	1229.3	1234.9	1226.0	1215.3
27.5°	1162.1	1176.6	1193.5	1186.7	1175.0
30°	1097.6	1118.9	1146.9	1141.3	1132.9
32.5°	1036.5	1057.8	1096.5	1094.2	1089.8
35°	981.0	994.5	1039.9	1045.5	1041.5
37.5°	928.3	940.6	983.2	996.1	992.8
40°	872.8	886.3	919.9	942.9	944.0
42.5°	817.9	830.8	858.2	891.3	891.3
45°	759.6	772.5	797.7	834.1	838.6
47.5°	702.4	715.8	740.5	777.0	784.2
50°	646.3	658.7	683.3	718.7	729.9
52.5°	588.0	601.5	625.6	658.1	674.4
55°	532.0	541.0	567.3	598.7	616.1
57.5°	473.7	482.1	511.8	538.7	556.6
60°	417.6	428.3	451.3	478.7	499.5
62.5°	363.8	375.0	394.6	418.7	442.3
65°	311.7	320.1	339.1	363.3	384.0
67.5°	261.2	268.5	287.6	304.4	326.3
70°	210.2	219.7	233.8	250.0	264.0
72.5°	169.3	173.2	185.0	196.8	211.3
75°	125.0	131.7	141.3	148.0	156.4
77.5°	89.7	93.6	99.2	104.8	112.7
80°	60.0	61.7	66.7	67.8	74.0
82.5°	36.4	37.6	38.7	39.2	41.5
85°	19.6	19.6	19.6	18.5	18.5
87.5°	11.2	11.2	9.5	7.8	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)