

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: P556775

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-93-87-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: P556775
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-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

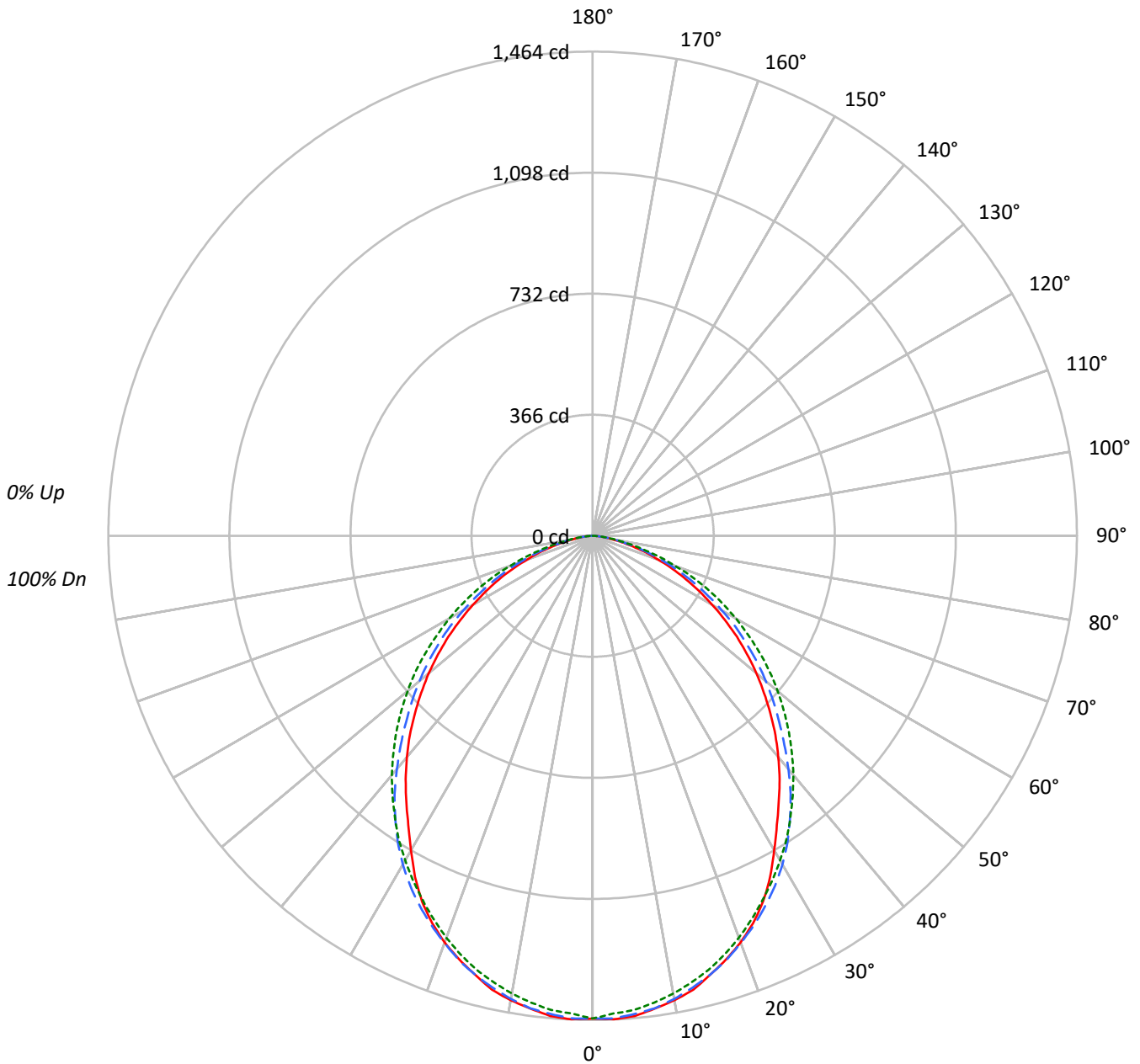
Lumens per Lamp: N/A
Luminaire Lumens: 3375.0 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3928	3928	3928
5°	3938	3922	3888
10°	3897	3886	3841
15°	3827	3827	3784
20°	3746	3751	3703
25°	3623	3668	3610
30°	3411	3565	3521
35°	3224	3417	3423
40°	3067	3232	3317
45°	2892	3037	3193
50°	2707	2861	3057
55°	2496	2662	2891
60°	2248	2429	2689
65°	1985	2160	2446
70°	1655	1840	2078
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°	386.1	11.4
20°-30°	564.2	16.7
30°-40°	640.4	19.0
40°-50°	618.2	18.3
50°-60°	510.0	15.1
60°-70°	339.6	10.1
70°-80°	152.0	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°	1087.7	32.2
0°-40°	1728.1	51.2
0°-60°	2856.3	84.6
0°-90°	3375.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3375.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1460	1460	1460	1460	1460	
5°	1458	1457	1452	1444	1439	138
15°	1374	1377	1374	1368	1358	387
25°	1220	1230	1235	1226	1216	559
35°	981	995	1040	1046	1042	615
45°	760	773	798	834	839	586
55°	532	541	568	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°	1459.6	1459.6	1459.6	1459.6	1459.6
2.5°	1463.5	1464.1	1460.7	1451.8	1446.1
5°	1457.9	1457.4	1451.8	1443.9	1439.4
7.5°	1441.7	1442.8	1441.1	1429.9	1423.7
10°	1426.0	1426.5	1422.0	1413.1	1405.8
12.5°	1405.8	1405.2	1399.0	1394.6	1382.8
15°	1373.8	1377.2	1373.8	1367.6	1358.1
17.5°	1343.0	1343.0	1345.2	1334.6	1327.3
20°	1308.2	1309.9	1309.9	1301.5	1293.1
22.5°	1267.8	1272.9	1274.6	1265.6	1255.5
25°	1220.2	1229.7	1235.3	1226.3	1215.7
27.5°	1162.4	1177.0	1193.8	1187.1	1175.3
30°	1097.9	1119.2	1147.3	1141.7	1133.3
32.5°	1036.8	1058.1	1096.8	1094.6	1090.1
35°	981.3	994.7	1040.2	1045.8	1041.9
37.5°	928.6	940.9	983.5	996.4	993.1
40°	873.1	886.5	920.2	943.2	944.3
42.5°	818.1	831.0	858.5	891.6	891.6
45°	759.8	772.7	797.9	834.4	838.9
47.5°	702.6	716.1	740.7	777.2	784.5
50°	646.5	658.9	683.5	718.9	730.1
52.5°	588.2	601.7	625.8	658.3	674.6
55°	532.1	541.1	567.5	598.9	616.3
57.5°	473.8	482.2	512.0	538.9	556.8
60°	417.7	428.4	451.4	478.9	499.6
62.5°	363.9	375.1	394.8	418.9	442.4
65°	311.8	320.2	339.2	363.4	384.1
67.5°	261.3	268.6	287.7	304.5	326.3
70°	210.3	219.8	233.8	250.1	264.1
72.5°	169.3	173.3	185.0	196.8	211.4
75°	125.0	131.8	141.3	148.0	156.4
77.5°	89.7	93.6	99.3	104.9	112.7
80°	60.0	61.7	66.7	67.8	74.0
82.5°	36.4	37.6	38.7	39.3	41.5
85°	19.6	19.6	19.6	18.5	18.5
87.5°	11.2	11.2	9.5	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)