

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: P556721

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-80-84-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: P556721
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-80-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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

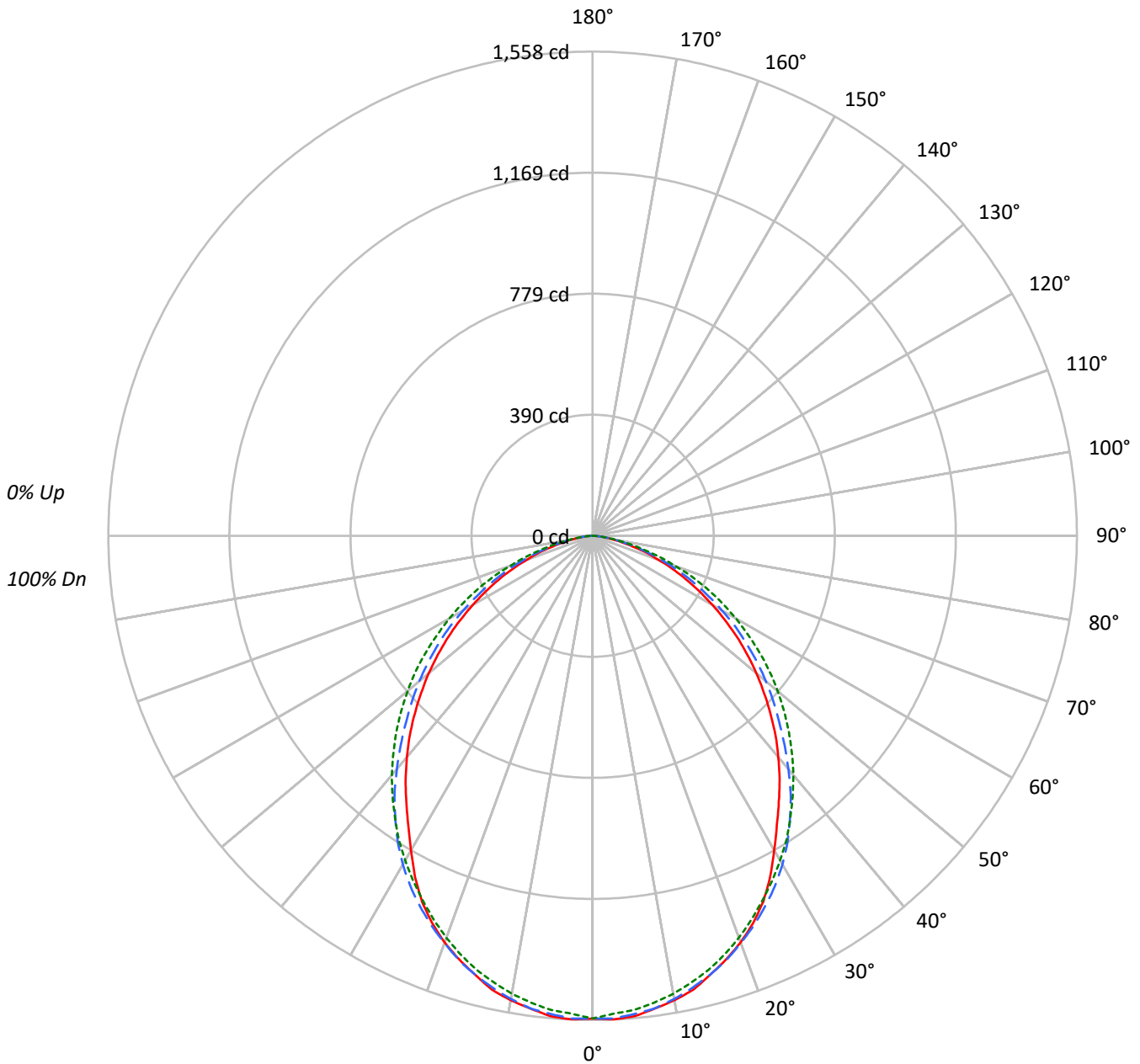
Lumens per Lamp: N/A
Luminaire Lumens: 3592.0 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556721

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-80-84-EDD

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°	4180	4180	4180
5°	4192	4174	4138
10°	4147	4136	4088
15°	4073	4073	4027
20°	3987	3992	3941
25°	3856	3904	3842
30°	3631	3794	3748
35°	3431	3637	3642
40°	3264	3440	3530
45°	3078	3232	3398
50°	2881	3046	3253
55°	2657	2834	3077
60°	2393	2585	2862
65°	2113	2299	2603
70°	1761	1958	2212
75°	1384	1564	1731
80°	990	1100	1221
85°	645	645	608



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.3	4.1
10°-20°	410.9	11.4
20°-30°	600.4	16.7
30°-40°	681.6	19.0
40°-50°	658.0	18.3
50°-60°	542.8	15.1
60°-70°	361.4	10.1
70°-80°	161.7	4.5
80°-90°	28.9	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°	1157.6	32.2
0°-40°	1839.2	51.2
0°-60°	3039.9	84.6
0°-90°	3592.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3592.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1553	1553	1553	1553	1553	
5°	1552	1551	1545	1537	1532	147
15°	1462	1466	1462	1456	1445	412
25°	1299	1309	1315	1305	1294	595
35°	1044	1059	1107	1113	1109	654
45°	809	822	849	888	893	624
55°	566	576	604	637	656	505
65°	332	341	361	387	409	329
75°	133	140	150	158	166	146
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1553.4	1553.4	1553.4	1553.4	1553.4
2.5°	1557.6	1558.2	1554.6	1545.1	1539.1
5°	1551.7	1551.1	1545.1	1536.7	1532.0
7.5°	1534.3	1535.5	1533.8	1521.8	1515.3
10°	1517.6	1518.2	1513.5	1503.9	1496.2
12.5°	1496.2	1495.6	1489.0	1484.2	1471.7
15°	1462.1	1465.7	1462.1	1455.6	1445.4
17.5°	1429.3	1429.3	1431.7	1420.4	1412.6
20°	1392.3	1394.1	1394.1	1385.2	1376.2
22.5°	1349.3	1354.7	1356.5	1347.0	1336.2
25°	1298.6	1308.8	1314.7	1305.2	1293.8
27.5°	1237.1	1252.7	1270.6	1263.4	1250.9
30°	1168.5	1191.2	1221.0	1215.1	1206.1
32.5°	1103.5	1126.1	1167.3	1164.9	1160.2
35°	1044.4	1058.7	1107.0	1113.0	1108.8
37.5°	988.3	1001.4	1046.8	1060.5	1056.9
40°	929.2	943.5	979.3	1003.8	1005.0
42.5°	870.7	884.4	913.7	948.9	948.9
45°	808.7	822.4	849.2	888.0	892.8
47.5°	747.8	762.1	788.4	827.2	834.9
50°	688.1	701.2	727.5	765.1	777.0
52.5°	626.0	640.4	666.0	700.6	717.9
55°	566.4	575.9	604.0	637.4	655.9
57.5°	504.3	513.2	544.9	573.5	592.6
60°	444.6	455.9	480.4	509.7	531.7
62.5°	387.3	399.3	420.1	445.8	470.9
65°	331.8	340.8	361.1	386.7	408.8
67.5°	278.1	285.9	306.2	324.1	347.3
70°	223.8	233.9	248.9	266.2	281.1
72.5°	180.2	184.4	196.9	209.5	225.0
75°	133.1	140.2	150.4	157.6	166.5
77.5°	95.5	99.7	105.6	111.6	120.0
80°	63.9	65.6	71.0	72.2	78.8
82.5°	38.8	40.0	41.2	41.8	44.2
85°	20.9	20.9	20.9	19.7	19.7
87.5°	11.9	11.9	10.1	8.4	6.0
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)