

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: P556226

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-81-85-EDD-90**

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: P556226
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-LD4-1HI-35-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

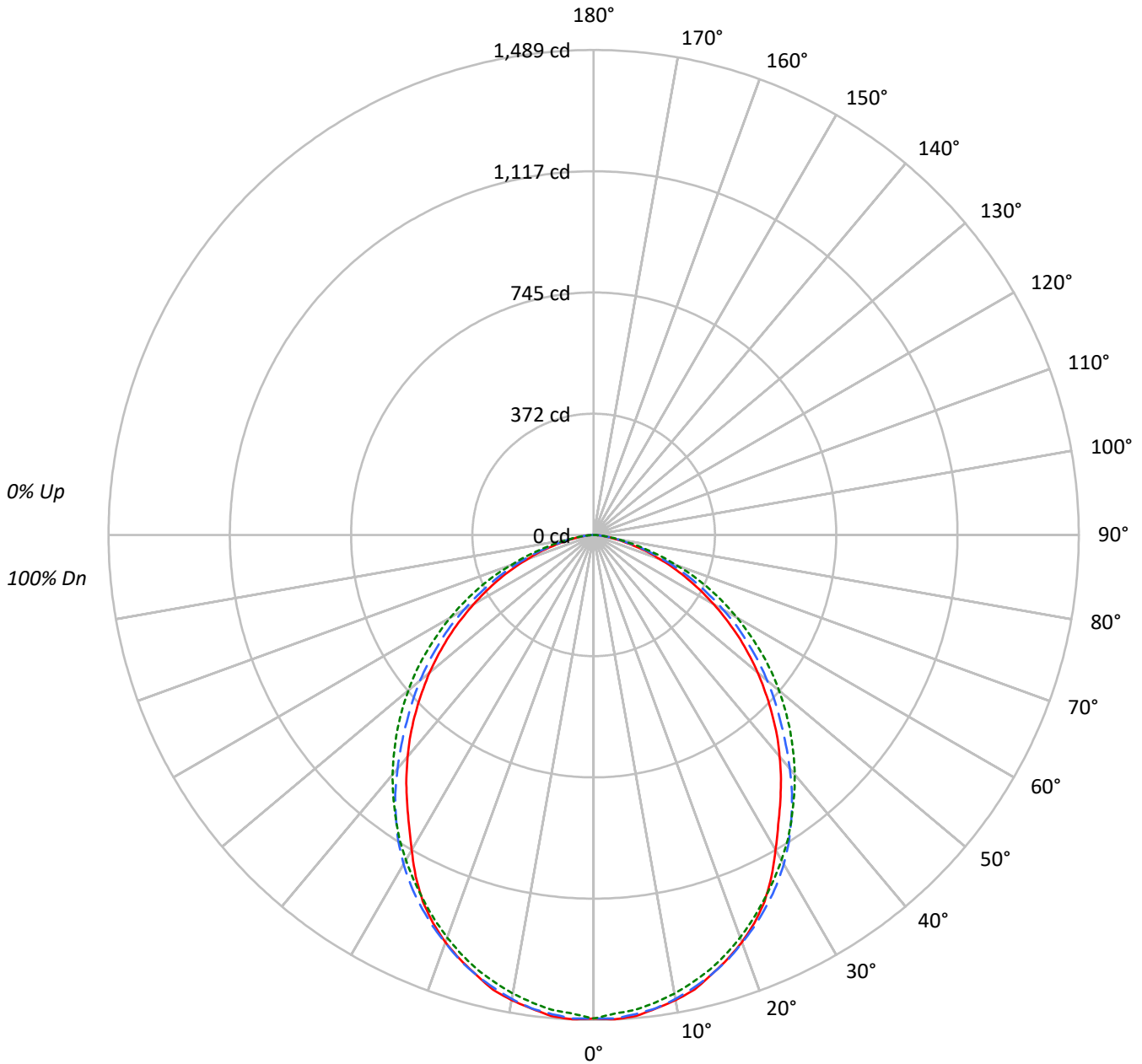
Lumens per Lamp: N/A
Luminaire Lumens: 3433.0 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	3995	3995	3995
5°	4006	3989	3955
10°	3963	3953	3907
15°	3893	3893	3848
20°	3811	3816	3767
25°	3685	3731	3672
30°	3470	3626	3582
35°	3279	3476	3482
40°	3120	3288	3374
45°	2941	3089	3247
50°	2753	2911	3109
55°	2540	2708	2941
60°	2287	2471	2735
65°	2019	2197	2488
70°	1683	1871	2113
75°	1323	1494	1654
80°	945	1052	1167
85°	618	618	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.8	4.1
10°-20°	392.7	11.4
20°-30°	573.9	16.7
30°-40°	651.4	19.0
40°-50°	628.8	18.3
50°-60°	518.7	15.1
60°-70°	345.4	10.1
70°-80°	154.6	4.5
80°-90°	27.7	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°	1106.4	32.2
0°-40°	1757.8	51.2
0°-60°	2905.3	84.6
0°-90°	3433.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3433.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1485	1485	1485	1485	1485	
5°	1483	1482	1477	1469	1464	140
15°	1397	1401	1397	1391	1381	394
25°	1241	1251	1256	1247	1237	568
35°	998	1012	1058	1064	1060	625
45°	773	786	812	849	853	596
55°	541	550	577	609	627	483
65°	317	326	345	370	391	314
75°	127	134	144	151	159	139
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°	1484.7	1484.7	1484.7	1484.7	1484.7
2.5°	1488.7	1489.2	1485.8	1476.7	1471.0
5°	1483.0	1482.4	1476.7	1468.7	1464.2
7.5°	1466.4	1467.6	1465.9	1454.5	1448.2
10°	1450.5	1451.0	1446.5	1437.3	1429.9
12.5°	1429.9	1429.4	1423.1	1418.5	1406.5
15°	1397.4	1400.8	1397.4	1391.1	1381.4
17.5°	1366.0	1366.0	1368.3	1357.5	1350.1
20°	1330.7	1332.4	1332.4	1323.8	1315.3
22.5°	1289.6	1294.7	1296.5	1287.3	1277.1
25°	1241.1	1250.8	1256.5	1247.4	1236.6
27.5°	1182.4	1197.2	1214.3	1207.5	1195.5
30°	1116.8	1138.5	1167.0	1161.3	1152.7
32.5°	1054.6	1076.3	1115.7	1113.4	1108.8
35°	998.2	1011.8	1058.0	1063.7	1059.8
37.5°	944.5	957.1	1000.4	1013.6	1010.1
40°	888.1	901.8	936.0	959.4	960.5
42.5°	832.2	845.3	873.2	906.9	906.9
45°	772.9	786.0	811.6	848.7	853.3
47.5°	714.7	728.4	753.5	790.5	798.0
50°	657.6	670.2	695.3	731.2	742.6
52.5°	598.3	612.0	636.5	669.6	686.2
55°	541.3	550.4	577.2	609.2	626.8
57.5°	482.0	490.5	520.8	548.1	566.4
60°	424.9	435.8	459.2	487.1	508.2
62.5°	370.2	381.6	401.5	426.1	450.0
65°	317.1	325.7	345.1	369.6	390.7
67.5°	265.8	273.2	292.6	309.7	332.0
70°	213.9	223.6	237.8	254.4	268.6
72.5°	172.3	176.2	188.2	200.2	215.0
75°	127.2	134.0	143.7	150.6	159.1
77.5°	91.3	95.3	101.0	106.7	114.6
80°	61.0	62.7	67.9	69.0	75.3
82.5°	37.1	38.2	39.4	39.9	42.2
85°	20.0	20.0	20.0	18.8	18.8
87.5°	11.4	11.4	9.7	8.0	5.7
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)