

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: P556989

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-80-96-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: P556989
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-LD4-2HI-35-UNV-80-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

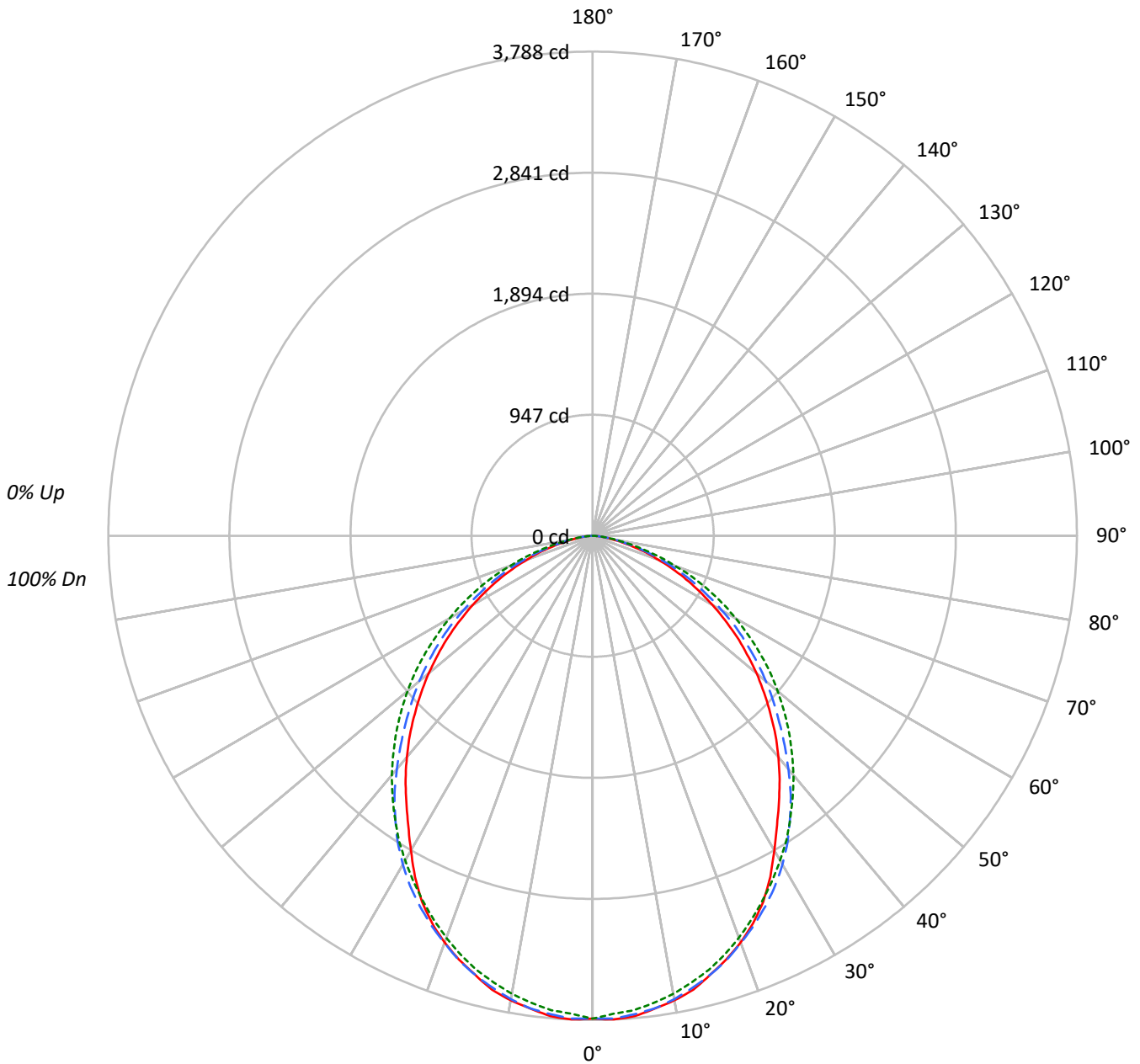
Lumens per Lamp: N/A
Luminaire Lumens: 8735.0 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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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CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-80-96-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°	10166	10166	10166
5°	10193	10149	10063
10°	10085	10057	9942
15°	9906	9906	9792
20°	9696	9708	9584
25°	9377	9493	9342
30°	8830	9226	9114
35°	8343	8844	8858
40°	7938	8366	8585
45°	7484	7859	8262
50°	7005	7406	7911
55°	6462	6891	7483
60°	5819	6288	6959
65°	5138	5591	6330
70°	4282	4762	5378
75°	3365	3802	4210
80°	2407	2676	2969
85°	1568	1568	1479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.7	4.1
10°-20°	999.2	11.4
20°-30°	1460.2	16.7
30°-40°	1657.4	19.0
40°-50°	1600.0	18.3
50°-60°	1319.9	15.1
60°-70°	878.9	10.1
70°-80°	393.3	4.5
80°-90°	70.4	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°	2815.0	32.2
0°-40°	4472.5	51.2
0°-60°	7392.4	84.6
0°-90°	8735.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8735.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3778	3778	3778	3778	3778	
5°	3773	3772	3757	3737	3725	357
15°	3556	3564	3556	3540	3515	1002
25°	3158	3183	3197	3174	3146	1446
35°	2540	2575	2692	2707	2696	1591
45°	1966	2000	2065	2160	2171	1517
55°	1377	1400	1469	1550	1595	1229
65°	807	829	878	940	994	800
75°	324	341	366	383	405	354
85°	51	51	51	48	48	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3777.7	3777.7	3777.7	3777.7	3777.7
2.5°	3787.8	3789.3	3780.6	3757.3	3742.8
5°	3773.3	3771.9	3757.3	3737.0	3725.4
7.5°	3731.2	3734.1	3729.8	3700.7	3684.8
10°	3690.6	3692.0	3680.4	3657.2	3638.3
12.5°	3638.3	3636.9	3620.9	3609.3	3578.8
15°	3555.6	3564.3	3555.6	3539.7	3515.0
17.5°	3475.8	3475.8	3481.6	3454.0	3435.2
20°	3385.8	3390.2	3390.2	3368.4	3346.6
22.5°	3281.3	3294.4	3298.7	3275.5	3249.4
25°	3158.0	3182.6	3197.2	3173.9	3146.4
27.5°	3008.5	3046.2	3089.8	3072.3	3041.9
30°	2841.6	2896.7	2969.3	2954.8	2933.0
32.5°	2683.4	2738.6	2838.7	2832.9	2821.3
35°	2539.7	2574.6	2692.1	2706.6	2696.5
37.5°	2403.3	2435.2	2545.5	2578.9	2570.2
40°	2259.6	2294.5	2381.5	2441.0	2443.9
42.5°	2117.4	2150.8	2221.9	2307.5	2307.5
45°	1966.5	1999.9	2065.2	2159.5	2171.1
47.5°	1818.4	1853.3	1917.1	2011.5	2030.3
50°	1673.3	1705.2	1769.1	1860.5	1889.6
52.5°	1522.4	1557.2	1619.6	1703.8	1745.9
55°	1377.3	1400.5	1468.7	1550.0	1594.9
57.5°	1226.3	1248.1	1325.0	1394.7	1441.1
60°	1081.2	1108.8	1168.3	1239.4	1293.1
62.5°	941.9	970.9	1021.7	1084.1	1145.1
65°	806.9	828.7	878.0	940.4	994.1
67.5°	676.3	695.2	744.5	788.0	844.6
70°	544.2	568.9	605.2	647.3	683.5
72.5°	438.3	448.4	478.9	509.4	547.1
75°	323.6	341.0	365.7	383.1	404.9
77.5°	232.2	242.4	256.9	271.4	291.7
80°	155.3	159.6	172.7	175.6	191.6
82.5°	94.3	97.2	100.1	101.6	107.4
85°	50.8	50.8	50.8	47.9	47.9
87.5°	29.0	29.0	24.7	20.3	14.5
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)