

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: P558336

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-81-84-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: P558336
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-LD4-3STD-40-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

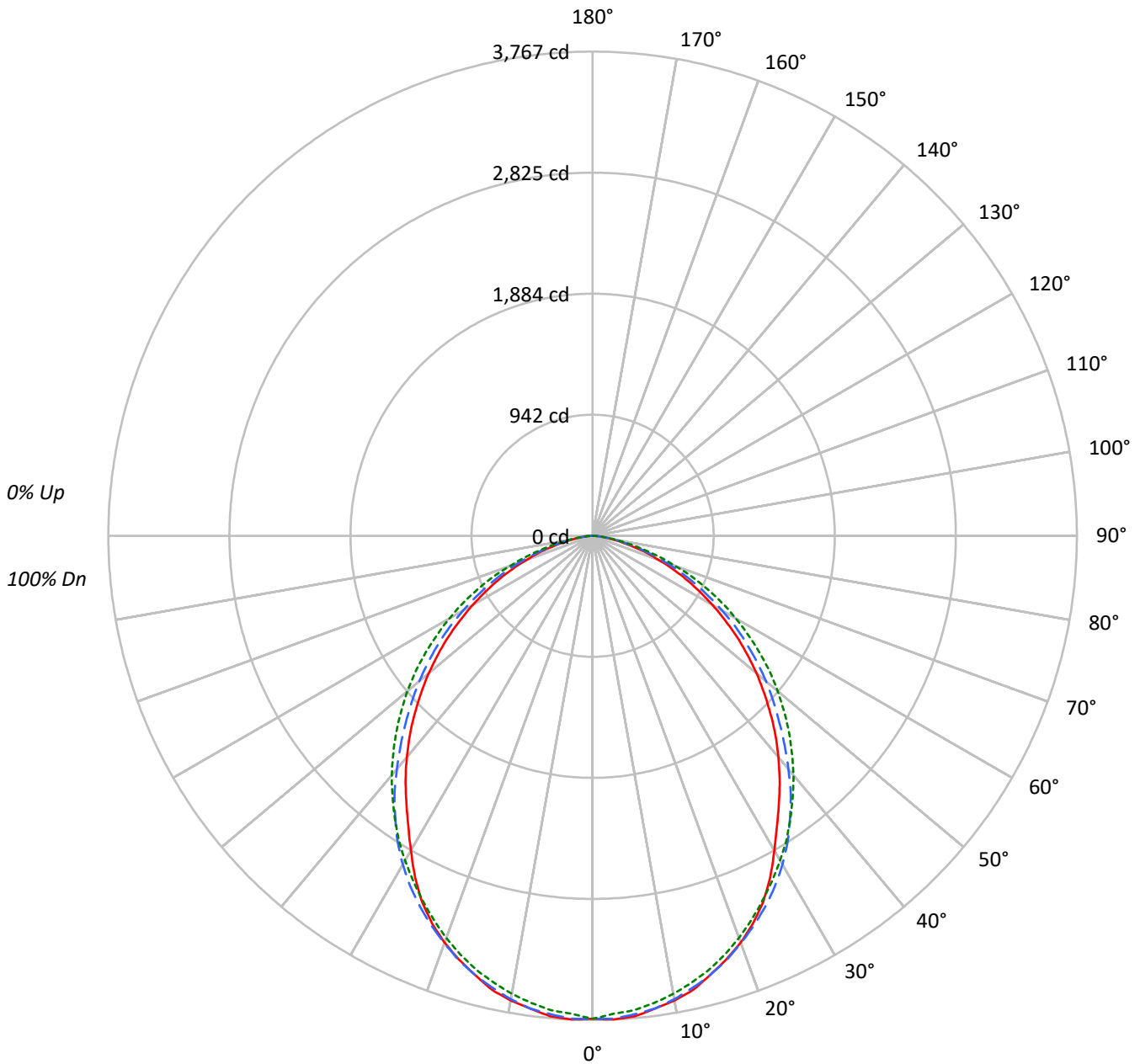
Lumens per Lamp: N/A
Luminaire Lumens: 8688.0 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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				20				
RC	80				70				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	100	100	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86	86	86	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73	73	73	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63	63	63	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54	54	54	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47	47	47	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42	42	42	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37	37	37	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34	34	34	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30	30	30	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28	28	28	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10111	10111	10111
5°	10138	10095	10009
10°	10030	10003	9888
15°	9852	9852	9740
20°	9644	9656	9532
25°	9326	9442	9292
30°	8782	9177	9065
35°	8298	8796	8811
40°	7895	8321	8539
45°	7443	7817	8218
50°	6967	7366	7868
55°	6427	6853	7443
60°	5788	6254	6922
65°	5110	5561	6296
70°	4259	4736	5349
75°	3347	3782	4187
80°	2394	2662	2952
85°	1559	1559	1470



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.8	4.1
10°-20°	993.8	11.4
20°-30°	1452.3	16.7
30°-40°	1648.5	19.0
40°-50°	1591.4	18.3
50°-60°	1312.8	15.1
60°-70°	874.2	10.1
70°-80°	391.2	4.5
80°-90°	70.0	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°	2799.9	32.2
0°-40°	4448.4	51.2
0°-60°	7352.6	84.6
0°-90°	8688.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8688.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3757	3757	3757	3757	3757	
5°	3753	3752	3737	3717	3705	355
15°	3536	3545	3536	3521	3496	997
25°	3141	3166	3180	3157	3129	1438
35°	2526	2561	2678	2692	2682	1583
45°	1956	1989	2054	2148	2159	1509
55°	1370	1393	1461	1542	1586	1223
65°	803	824	873	935	989	796
75°	322	339	364	381	403	352
85°	50	50	50	48	48	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3757.3	3757.3	3757.3	3757.3	3757.3
2.5°	3767.4	3768.9	3760.2	3737.1	3722.7
5°	3753.0	3751.6	3737.1	3716.9	3705.4
7.5°	3711.1	3714.0	3709.7	3680.8	3665.0
10°	3670.7	3672.2	3660.6	3637.5	3618.8
12.5°	3618.8	3617.3	3601.4	3589.9	3559.6
15°	3536.5	3545.1	3536.5	3520.6	3496.1
17.5°	3457.1	3457.1	3462.9	3435.4	3416.7
20°	3367.6	3371.9	3371.9	3350.3	3328.6
22.5°	3263.7	3276.7	3281.0	3257.9	3231.9
25°	3141.0	3165.5	3180.0	3156.9	3129.4
27.5°	2992.3	3029.8	3073.1	3055.8	3025.5
30°	2826.3	2881.2	2953.3	2938.9	2917.2
32.5°	2669.0	2723.8	2823.4	2817.6	2806.1
35°	2526.1	2560.7	2677.6	2692.1	2682.0
37.5°	2390.4	2422.1	2531.8	2565.0	2556.4
40°	2247.5	2282.1	2368.7	2427.9	2430.8
42.5°	2106.0	2139.2	2209.9	2295.1	2295.1
45°	1955.9	1989.1	2054.0	2147.9	2159.4
47.5°	1808.7	1843.3	1906.8	2000.6	2019.4
50°	1664.3	1696.1	1759.6	1850.5	1879.4
52.5°	1514.2	1548.8	1610.9	1694.6	1736.5
55°	1369.8	1392.9	1460.8	1541.6	1586.4
57.5°	1219.7	1241.4	1317.9	1387.2	1433.4
60°	1075.4	1102.8	1162.0	1232.7	1286.1
62.5°	936.8	965.7	1016.2	1078.3	1138.9
65°	802.6	824.2	873.3	935.4	988.8
67.5°	672.7	691.4	740.5	783.8	840.1
70°	541.3	565.8	601.9	643.8	679.9
72.5°	435.9	446.0	476.3	506.7	544.2
75°	321.9	339.2	363.8	381.1	402.7
77.5°	231.0	241.1	255.5	269.9	290.1
80°	154.5	158.8	171.8	174.7	190.5
82.5°	93.8	96.7	99.6	101.0	106.8
85°	50.5	50.5	50.5	47.6	47.6
87.5°	28.9	28.9	24.5	20.2	14.4
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)