

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: P558380

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-93-96-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: P558380
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-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

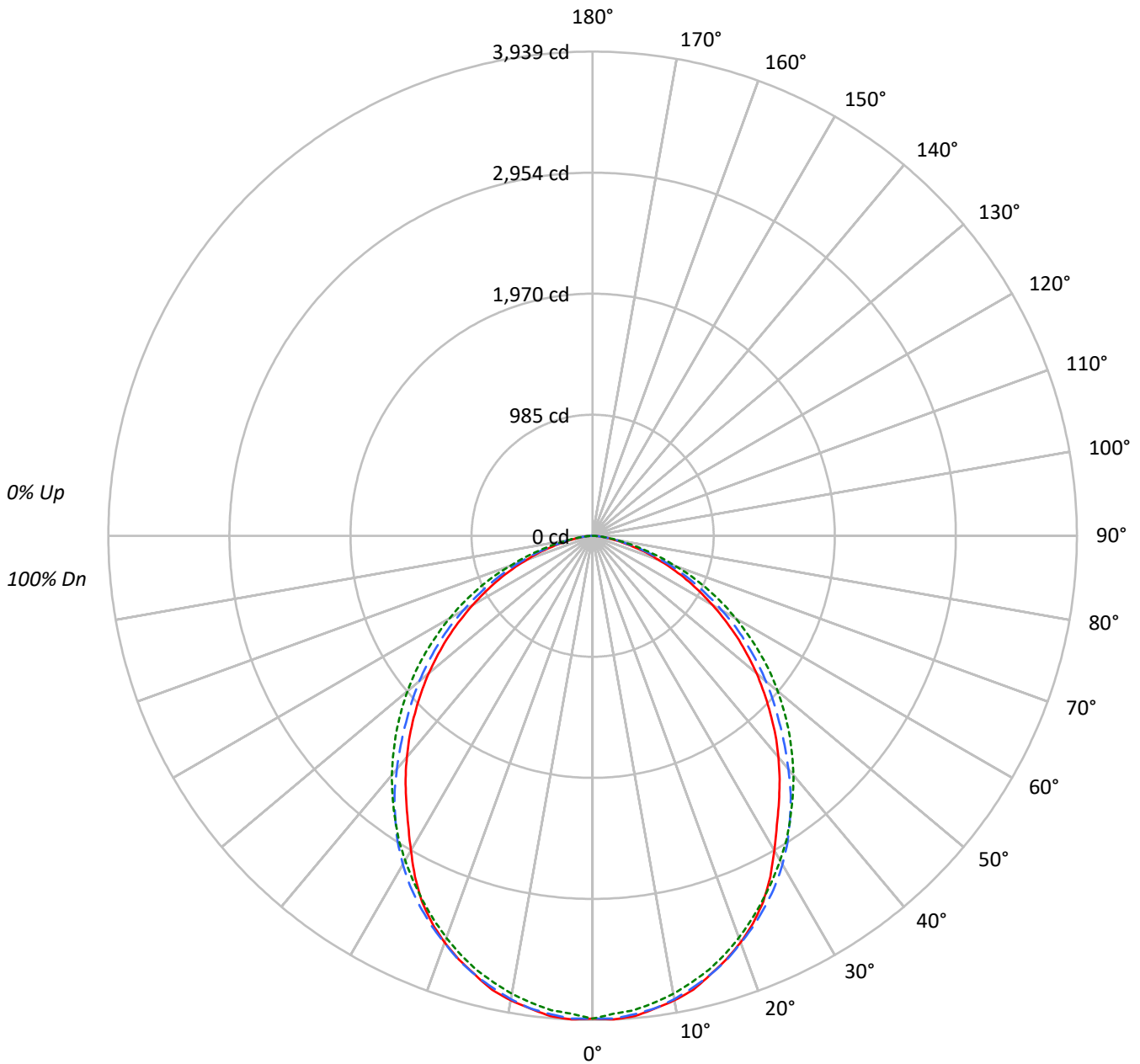
Lumens per Lamp: N/A
Luminaire Lumens: 9083.0 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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

TEST NUMBER: P558380

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-93-96-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558380

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-93-96-EDD-90

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°	10571	10571	10571
5°	10599	10554	10464
10°	10486	10458	10338
15°	10300	10300	10182
20°	10082	10095	9966
25°	9750	9871	9714
30°	9181	9594	9477
35°	8676	9196	9211
40°	8254	8699	8927
45°	7782	8172	8592
50°	7284	7701	8225
55°	6719	7165	7781
60°	6051	6538	7237
65°	5343	5813	6582
70°	4452	4951	5593
75°	3499	3954	4377
80°	2503	2783	3087
85°	1630	1630	1538



TEST NUMBER: P558380

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-93-96-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.8	4.1
10°-20°	1039.0	11.4
20°-30°	1518.3	16.7
30°-40°	1723.5	19.0
40°-50°	1663.7	18.3
50°-60°	1372.5	15.1
60°-70°	914.0	10.1
70°-80°	409.0	4.5
80°-90°	73.2	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°	2927.2	32.2
0°-40°	4650.7	51.2
0°-60°	7686.9	84.6
0°-90°	9083.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9083.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3928	3928	3928	3928	3928	
5°	3924	3922	3907	3886	3874	371
15°	3697	3706	3697	3681	3655	1042
25°	3284	3309	3324	3300	3272	1504
35°	2641	2677	2799	2814	2804	1655
45°	2045	2080	2147	2246	2258	1578
55°	1432	1456	1527	1612	1658	1278
65°	839	862	913	978	1034	832
75°	336	355	380	398	421	368
85°	53	53	53	50	50	71
90°	0	0	0	0	0	



TEST NUMBER: P558380

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-93-96-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3928.2	3928.2	3928.2	3928.2	3928.2
2.5°	3938.7	3940.2	3931.2	3907.0	3891.9
5°	3923.6	3922.1	3907.0	3885.9	3873.8
7.5°	3879.9	3882.9	3878.4	3848.2	3831.6
10°	3837.6	3839.1	3827.1	3802.9	3783.3
12.5°	3783.3	3781.8	3765.2	3753.1	3721.4
15°	3697.3	3706.3	3697.3	3680.7	3655.0
17.5°	3614.3	3614.3	3620.3	3591.6	3572.0
20°	3520.7	3525.2	3525.2	3502.6	3480.0
22.5°	3412.1	3425.6	3430.2	3406.0	3378.9
25°	3283.8	3309.4	3324.5	3300.4	3271.7
27.5°	3128.3	3167.6	3212.9	3194.7	3163.1
30°	2954.8	3012.1	3087.6	3072.5	3049.9
32.5°	2790.3	2847.7	2951.8	2945.7	2933.7
35°	2640.9	2677.1	2799.4	2814.5	2803.9
37.5°	2499.1	2532.3	2646.9	2681.7	2672.6
40°	2349.7	2385.9	2476.4	2538.3	2541.3
42.5°	2201.8	2236.5	2310.4	2399.5	2399.5
45°	2044.8	2079.5	2147.4	2245.5	2257.6
47.5°	1890.9	1927.1	1993.5	2091.6	2111.2
50°	1740.0	1773.2	1839.6	1934.7	1964.8
52.5°	1583.0	1619.3	1684.1	1771.7	1815.4
55°	1432.1	1456.3	1527.2	1611.7	1658.5
57.5°	1275.2	1297.8	1377.8	1450.2	1498.5
60°	1124.3	1152.9	1214.8	1288.8	1344.6
62.5°	979.4	1009.6	1062.4	1127.3	1190.7
65°	839.1	861.7	913.0	977.9	1033.7
67.5°	703.2	722.9	774.2	819.4	878.3
70°	565.9	591.6	629.3	673.1	710.8
72.5°	455.7	466.3	498.0	529.7	568.9
75°	336.5	354.6	380.3	398.4	421.0
77.5°	241.5	252.0	267.1	282.2	303.3
80°	161.5	166.0	179.6	182.6	199.2
82.5°	98.1	101.1	104.1	105.6	111.7
85°	52.8	52.8	52.8	49.8	49.8
87.5°	30.2	30.2	25.7	21.1	15.1
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)