

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: P557700

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-81-86-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: P557700
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-LD4-3HI-30-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

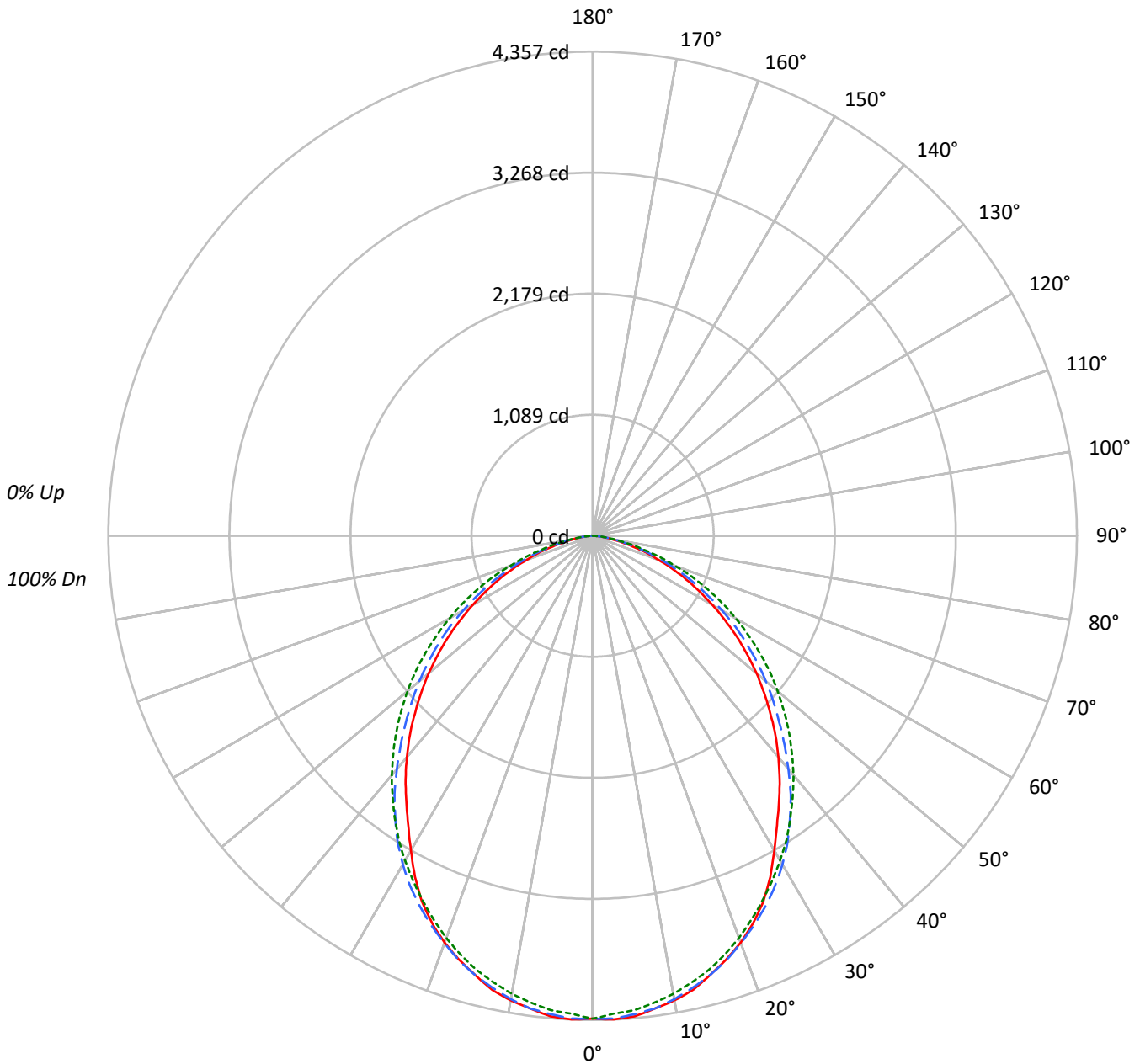
Lumens per Lamp: N/A
Luminaire Lumens: 10048.0 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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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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								
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°	11694	11694	11694
5°	11725	11675	11576
10°	11600	11568	11436
15°	11395	11395	11264
20°	11153	11168	11024
25°	10786	10920	10746
30°	10157	10613	10484
35°	9597	10173	10190
40°	9131	9623	9876
45°	8609	9041	9505
50°	8058	8519	9100
55°	7433	7926	8608
60°	6694	7233	8006
65°	5910	6431	7282
70°	4925	5477	6187
75°	3871	4374	4843
80°	2768	3079	3415
85°	1803	1803	1701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	409.1	4.1
10°-20°	1149.4	11.4
20°-30°	1679.6	16.7
30°-40°	1906.6	19.0
40°-50°	1840.5	18.3
50°-60°	1518.3	15.1
60°-70°	1011.1	10.1
70°-80°	452.4	4.5
80°-90°	80.9	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°	3238.2	32.2
0°-40°	5144.8	51.2
0°-60°	8503.6	84.6
0°-90°	10048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10048.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4346	4346	4346	4346	4346	
5°	4340	4339	4322	4299	4285	411
15°	4090	4100	4090	4072	4043	1153
25°	3633	3661	3678	3651	3619	1664
35°	2922	2962	3097	3114	3102	1830
45°	2262	2300	2376	2484	2498	1745
55°	1584	1611	1690	1783	1835	1414
65°	928	953	1010	1082	1144	920
75°	372	392	421	441	466	407
85°	58	58	58	55	55	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4345.5	4345.5	4345.5	4345.5	4345.5
2.5°	4357.2	4358.9	4348.8	4322.1	4305.4
5°	4340.5	4338.8	4322.1	4298.8	4285.4
7.5°	4292.1	4295.4	4290.4	4257.0	4238.7
10°	4245.3	4247.0	4233.6	4206.9	4185.2
12.5°	4185.2	4183.6	4165.2	4151.8	4116.8
15°	4090.1	4100.1	4090.1	4071.7	4043.3
17.5°	3998.3	3998.3	4004.9	3973.2	3951.5
20°	3894.8	3899.8	3899.8	3874.7	3849.7
22.5°	3774.6	3789.6	3794.6	3767.9	3737.8
25°	3632.7	3661.0	3677.7	3651.0	3619.3
27.5°	3460.7	3504.1	3554.2	3534.2	3499.1
30°	3268.7	3332.2	3415.6	3398.9	3373.9
32.5°	3086.8	3150.2	3265.4	3258.7	3245.4
35°	2921.5	2961.6	3096.8	3113.5	3101.8
37.5°	2764.6	2801.3	2928.2	2966.6	2956.5
40°	2599.3	2639.4	2739.5	2808.0	2811.3
42.5°	2435.7	2474.1	2555.9	2654.4	2654.4
45°	2262.1	2300.5	2375.6	2484.1	2497.5
47.5°	2091.8	2131.8	2205.3	2313.8	2335.5
50°	1924.8	1961.6	2035.0	2140.2	2173.6
52.5°	1751.2	1791.3	1863.1	1959.9	2008.3
55°	1584.3	1611.0	1689.5	1782.9	1834.7
57.5°	1410.7	1435.7	1524.2	1604.3	1657.7
60°	1243.7	1275.4	1343.9	1425.7	1487.5
62.5°	1083.5	1116.8	1175.3	1247.1	1317.2
65°	928.2	953.2	1010.0	1081.8	1143.6
67.5°	777.9	799.7	856.4	906.5	971.6
70°	626.0	654.4	696.1	744.6	786.3
72.5°	504.2	515.9	550.9	586.0	629.4
75°	372.3	392.3	420.7	440.7	465.8
77.5°	267.1	278.8	295.5	312.2	335.6
80°	178.6	183.6	198.7	202.0	220.4
82.5°	108.5	111.9	115.2	116.9	123.5
85°	58.4	58.4	58.4	55.1	55.1
87.5°	33.4	33.4	28.4	23.4	16.7
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)