

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: P558290

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-82-85-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: P558290
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-35-UNV-82-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 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

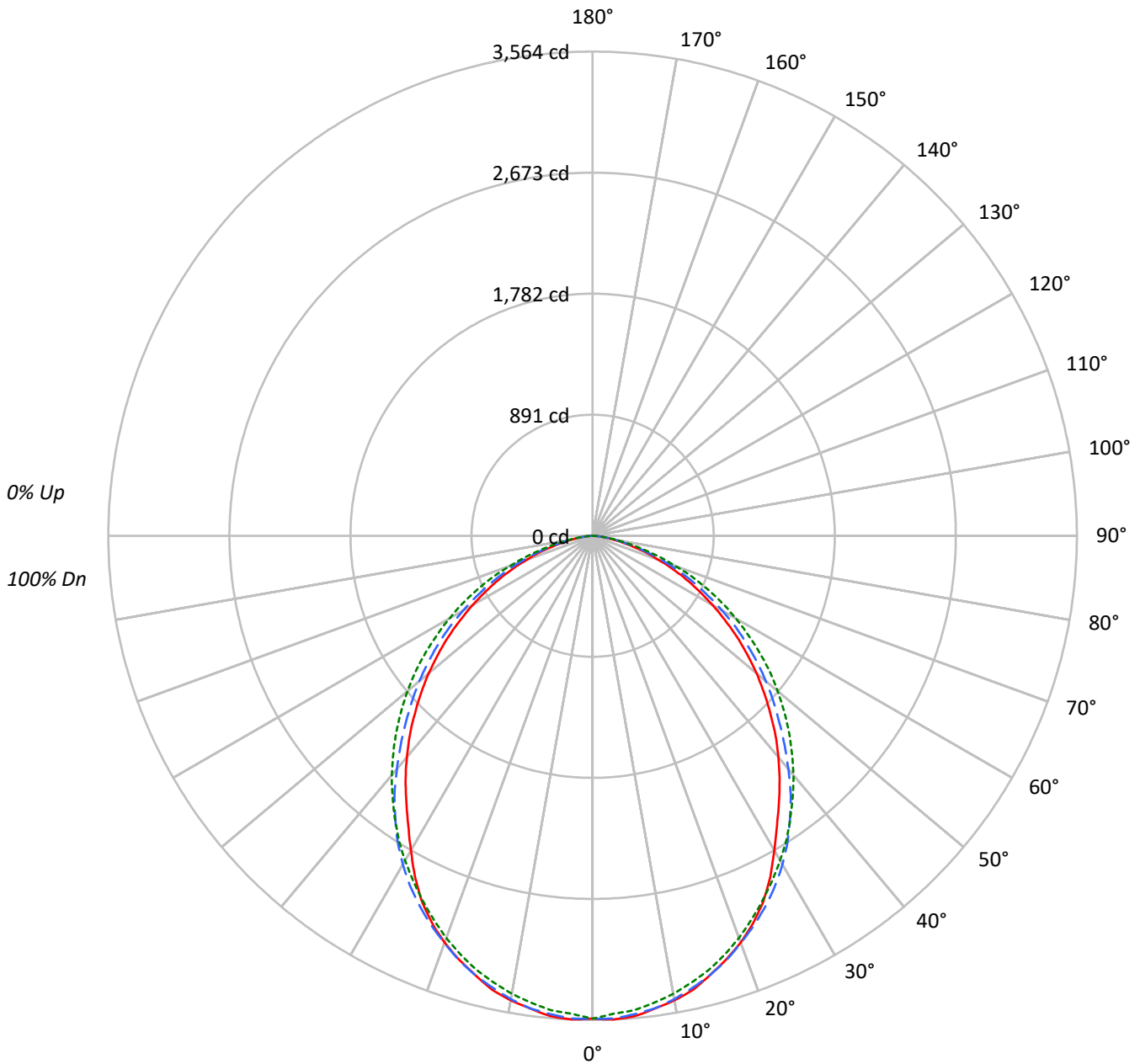
Lumens per Lamp: N/A
Luminaire Lumens: 8219.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	9565	9565	9565
5°	9591	9550	9469
10°	9489	9463	9354
15°	9321	9321	9214
20°	9123	9135	9017
25°	8823	8932	8790
30°	8308	8681	8575
35°	7850	8321	8335
40°	7469	7872	8078
45°	7042	7395	7774
50°	6592	6969	7443
55°	6080	6483	7041
60°	5475	5916	6548
65°	4834	5261	5956
70°	4029	4480	5061
75°	3166	3578	3961
80°	2264	2518	2794
85°	1476	1476	1392



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.7	4.1
10°-20°	940.2	11.4
20°-30°	1373.9	16.7
30°-40°	1559.5	19.0
40°-50°	1505.5	18.3
50°-60°	1241.9	15.1
60°-70°	827.0	10.1
70°-80°	370.1	4.5
80°-90°	66.2	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°	2648.7	32.2
0°-40°	4208.3	51.2
0°-60°	6955.7	84.6
0°-90°	8219.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8219.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3554	3554	3554	3554	3554	
5°	3550	3549	3535	3516	3505	336
15°	3346	3354	3346	3331	3307	943
25°	2971	2995	3008	2986	2960	1361
35°	2390	2422	2533	2547	2537	1497
45°	1850	1882	1943	2032	2043	1428
55°	1296	1318	1382	1458	1501	1157
65°	759	780	826	885	935	753
75°	304	321	344	360	381	333
85°	48	48	48	45	45	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3554.5	3554.5	3554.5	3554.5	3554.5
2.5°	3564.1	3565.4	3557.2	3535.4	3521.7
5°	3550.4	3549.0	3535.4	3516.3	3505.3
7.5°	3510.8	3513.5	3509.4	3482.1	3467.1
10°	3472.6	3473.9	3463.0	3441.2	3423.4
12.5°	3423.4	3422.0	3407.0	3396.1	3367.4
15°	3345.6	3353.8	3345.6	3330.6	3307.3
17.5°	3270.5	3270.5	3275.9	3250.0	3232.2
20°	3185.8	3189.9	3189.9	3169.4	3148.9
22.5°	3087.5	3099.8	3103.9	3082.0	3057.4
25°	2971.4	2994.6	3008.3	2986.4	2960.5
27.5°	2830.8	2866.3	2907.2	2890.9	2862.2
30°	2673.7	2725.6	2793.9	2780.2	2759.8
32.5°	2524.9	2576.8	2671.0	2665.5	2654.6
35°	2389.7	2422.5	2533.1	2546.7	2537.2
37.5°	2261.3	2291.4	2395.2	2426.6	2418.4
40°	2126.1	2158.9	2240.9	2296.8	2299.6
42.5°	1992.3	2023.7	2090.6	2171.2	2171.2
45°	1850.3	1881.7	1943.2	2031.9	2042.9
47.5°	1711.0	1743.8	1803.9	1892.6	1910.4
50°	1574.5	1604.5	1664.6	1750.6	1777.9
52.5°	1432.5	1465.2	1523.9	1603.1	1642.7
55°	1295.9	1317.7	1381.9	1458.4	1500.7
57.5°	1153.9	1174.4	1246.7	1312.3	1356.0
60°	1017.3	1043.3	1099.3	1166.2	1216.7
62.5°	886.2	913.5	961.3	1020.1	1077.4
65°	759.2	779.7	826.2	884.9	935.4
67.5°	636.3	654.1	700.5	741.5	794.7
70°	512.1	535.3	569.4	609.0	643.2
72.5°	412.4	422.0	450.6	479.3	514.8
75°	304.5	320.9	344.1	360.5	381.0
77.5°	218.5	228.0	241.7	255.4	274.5
80°	146.1	150.2	162.5	165.2	180.3
82.5°	88.8	91.5	94.2	95.6	101.1
85°	47.8	47.8	47.8	45.1	45.1
87.5°	27.3	27.3	23.2	19.1	13.7
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)