

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: P557702

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-81-87-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: P557702
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-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

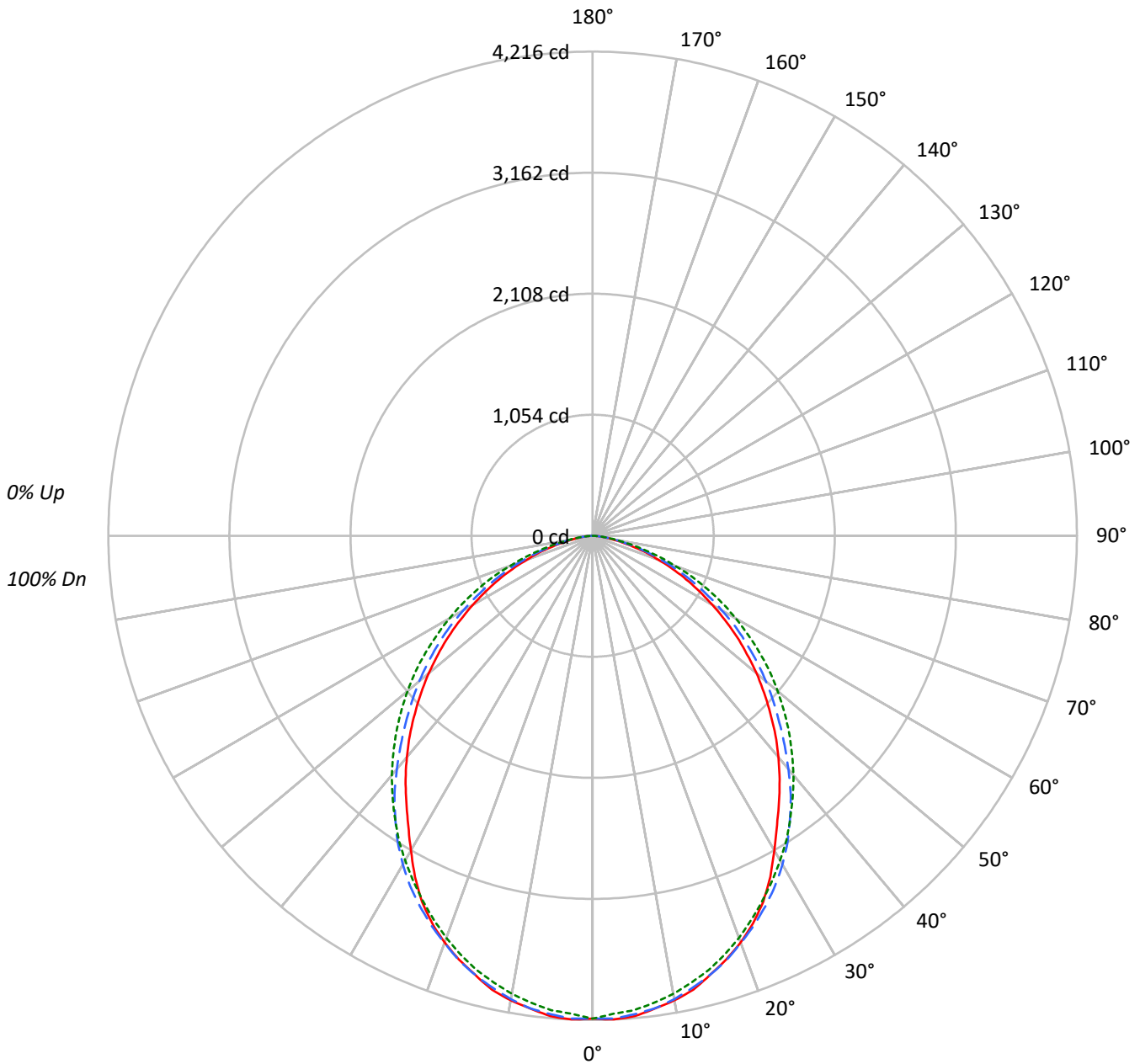
Lumens per Lamp: N/A
Luminaire Lumens: 9722.0 lumens
Efficiency: N/A
Efficacy: 75.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	11314	11314	11314
5°	11344	11296	11200
10°	11224	11193	11065
15°	11025	11025	10899
20°	10791	10805	10667
25°	10436	10565	10398
30°	9827	10269	10143
35°	9286	9843	9859
40°	8835	9311	9555
45°	8329	8747	9196
50°	7797	8243	8804
55°	7192	7669	8328
60°	6477	6998	7746
65°	5719	6222	7046
70°	4766	5300	5986
75°	3745	4232	4686
80°	2678	2978	3304
85°	1744	1744	1646



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.9	4.1
10°-20°	1112.1	11.4
20°-30°	1625.2	16.7
30°-40°	1844.7	19.0
40°-50°	1780.8	18.3
50°-60°	1469.0	15.1
60°-70°	978.3	10.1
70°-80°	437.8	4.5
80°-90°	78.3	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°	3133.1	32.2
0°-40°	4977.8	51.2
0°-60°	8227.7	84.6
0°-90°	9722.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9722.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4204	4204	4204	4204	4204	
5°	4200	4198	4182	4159	4146	397
15°	3957	3967	3957	3940	3912	1116
25°	3515	3542	3558	3533	3502	1610
35°	2827	2866	2996	3012	3001	1771
45°	2189	2226	2298	2404	2416	1689
55°	1533	1559	1635	1725	1775	1368
65°	898	922	977	1047	1106	891
75°	360	380	407	426	451	394
85°	56	56	56	53	53	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4204.5	4204.5	4204.5	4204.5	4204.5
2.5°	4215.8	4217.4	4207.7	4181.9	4165.7
5°	4199.7	4198.1	4181.9	4159.3	4146.4
7.5°	4152.8	4156.1	4151.2	4118.9	4101.1
10°	4107.6	4109.2	4096.3	4070.4	4049.4
12.5°	4049.4	4047.8	4030.1	4017.1	3983.2
15°	3957.4	3967.1	3957.4	3939.6	3912.2
17.5°	3868.5	3868.5	3875.0	3844.3	3823.3
20°	3768.4	3773.2	3773.2	3749.0	3724.8
22.5°	3652.1	3666.6	3671.5	3645.6	3616.6
25°	3514.8	3542.3	3558.4	3532.6	3501.9
27.5°	3348.4	3390.4	3438.9	3419.5	3385.6
30°	3162.7	3224.1	3304.8	3288.7	3264.4
32.5°	2986.6	3048.0	3159.4	3153.0	3140.1
35°	2826.7	2865.5	2996.3	3012.5	3001.1
37.5°	2674.9	2710.4	2833.2	2870.3	2860.6
40°	2515.0	2553.7	2650.6	2716.9	2720.1
42.5°	2356.7	2393.8	2473.0	2568.3	2568.3
45°	2188.7	2225.8	2298.5	2403.5	2416.4
47.5°	2023.9	2062.7	2133.8	2238.7	2259.7
50°	1862.4	1897.9	1969.0	2070.8	2103.1
52.5°	1694.4	1733.2	1802.6	1896.3	1943.2
55°	1532.9	1558.7	1634.6	1725.1	1775.2
57.5°	1364.9	1389.1	1474.7	1552.3	1604.0
60°	1203.4	1234.1	1300.3	1379.4	1439.2
62.5°	1048.3	1080.6	1137.1	1206.6	1274.4
65°	898.1	922.3	977.2	1046.7	1106.5
67.5°	752.7	773.7	828.6	877.1	940.1
70°	605.7	633.2	673.6	720.4	760.8
72.5°	487.8	499.1	533.0	567.0	609.0
75°	360.2	379.6	407.0	426.4	450.7
77.5°	258.4	269.7	285.9	302.1	324.7
80°	172.8	177.7	192.2	195.4	213.2
82.5°	105.0	108.2	111.5	113.1	119.5
85°	56.5	56.5	56.5	53.3	53.3
87.5°	32.3	32.3	27.5	22.6	16.2
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)