

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: P556178

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-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: P556178
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-LD4-1HI-30-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

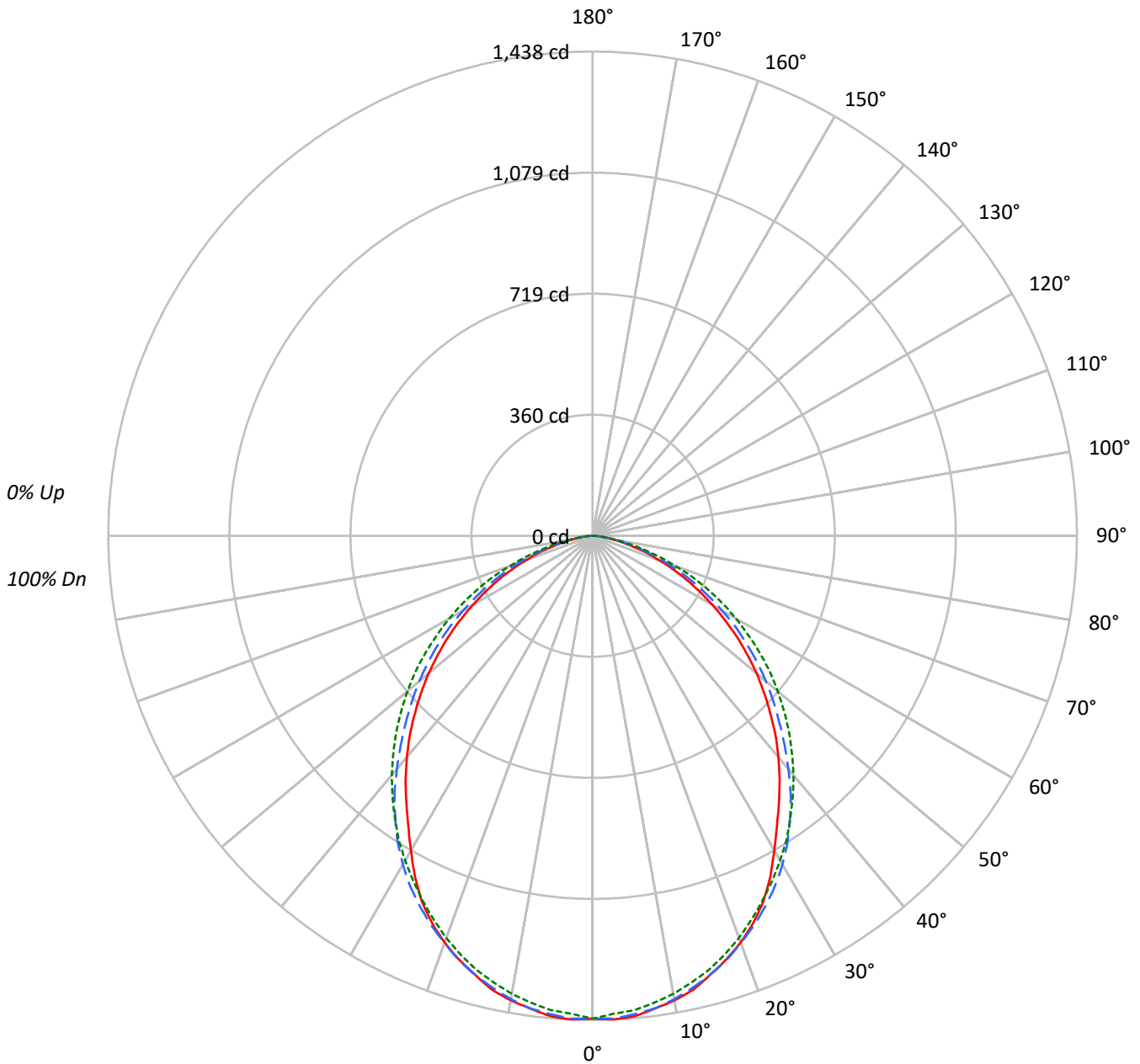
Lumens per Lamp: N/A
Luminaire Lumens: 3316.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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									
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°	3859	3859	3859
5°	3869	3853	3820
10°	3828	3818	3774
15°	3760	3760	3718
20°	3681	3686	3638
25°	3559	3604	3546
30°	3352	3503	3460
35°	3167	3357	3363
40°	3013	3176	3259
45°	2841	2984	3137
50°	2659	2812	3003
55°	2453	2616	2841
60°	2209	2387	2642
65°	1950	2122	2403
70°	1626	1807	2042
75°	1278	1443	1598
80°	914	1017	1127
85°	596	596	562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.0	4.1
10°-20°	379.3	11.4
20°-30°	554.3	16.7
30°-40°	629.2	19.0
40°-50°	607.4	18.3
50°-60°	501.1	15.1
60°-70°	333.7	10.1
70°-80°	149.3	4.5
80°-90°	26.7	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°	1068.7	32.2
0°-40°	1697.9	51.2
0°-60°	2806.3	84.6
0°-90°	3316.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3316.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1434	1434	1434	1434	1434	
5°	1432	1432	1426	1419	1414	136
15°	1350	1353	1350	1344	1334	381
25°	1199	1208	1214	1205	1194	549
35°	964	977	1022	1028	1024	604
45°	746	759	784	820	824	576
55°	523	532	558	588	606	467
65°	306	315	333	357	377	304
75°	123	130	139	145	154	134
85°	19	19	19	18	18	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1434.1	1434.1	1434.1	1434.1	1434.1
2.5°	1437.9	1438.5	1435.2	1426.4	1420.9
5°	1432.4	1431.9	1426.4	1418.7	1414.3
7.5°	1416.5	1417.6	1415.9	1404.9	1398.8
10°	1401.0	1401.6	1397.2	1388.4	1381.2
12.5°	1381.2	1380.6	1374.6	1370.2	1358.6
15°	1349.8	1353.1	1349.8	1343.7	1334.4
17.5°	1319.5	1319.5	1321.7	1311.2	1304.1
20°	1285.3	1287.0	1287.0	1278.7	1270.5
22.5°	1245.7	1250.6	1252.3	1243.5	1233.5
25°	1198.8	1208.2	1213.7	1204.9	1194.4
27.5°	1142.1	1156.4	1172.9	1166.3	1154.8
30°	1078.7	1099.7	1127.2	1121.7	1113.4
32.5°	1018.7	1039.6	1077.6	1075.4	1071.0
35°	964.1	977.4	1022.0	1027.5	1023.6
37.5°	912.3	924.5	966.3	979.0	975.7
40°	857.8	871.0	904.1	926.7	927.8
42.5°	803.8	816.5	843.5	876.0	876.0
45°	746.5	759.2	784.0	819.8	824.2
47.5°	690.3	703.5	727.8	763.6	770.8
50°	635.2	647.3	671.6	706.3	717.3
52.5°	577.9	591.2	614.8	646.8	662.8
55°	522.8	531.7	557.5	588.4	605.5
57.5°	465.5	473.8	503.0	529.4	547.1
60°	410.4	420.9	443.5	470.5	490.9
62.5°	357.6	368.6	387.9	411.5	434.7
65°	306.3	314.6	333.3	357.0	377.4
67.5°	256.7	263.9	282.6	299.2	320.6
70°	206.6	216.0	229.7	245.7	259.5
72.5°	166.4	170.2	181.8	193.4	207.7
75°	122.9	129.5	138.8	145.4	153.7
77.5°	88.1	92.0	97.5	103.0	110.7
80°	59.0	60.6	65.6	66.7	72.7
82.5°	35.8	36.9	38.0	38.6	40.8
85°	19.3	19.3	19.3	18.2	18.2
87.5°	11.0	11.0	9.4	7.7	5.5
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)