

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: P556278

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-80-87-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: P556278
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-40-UNV-80-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

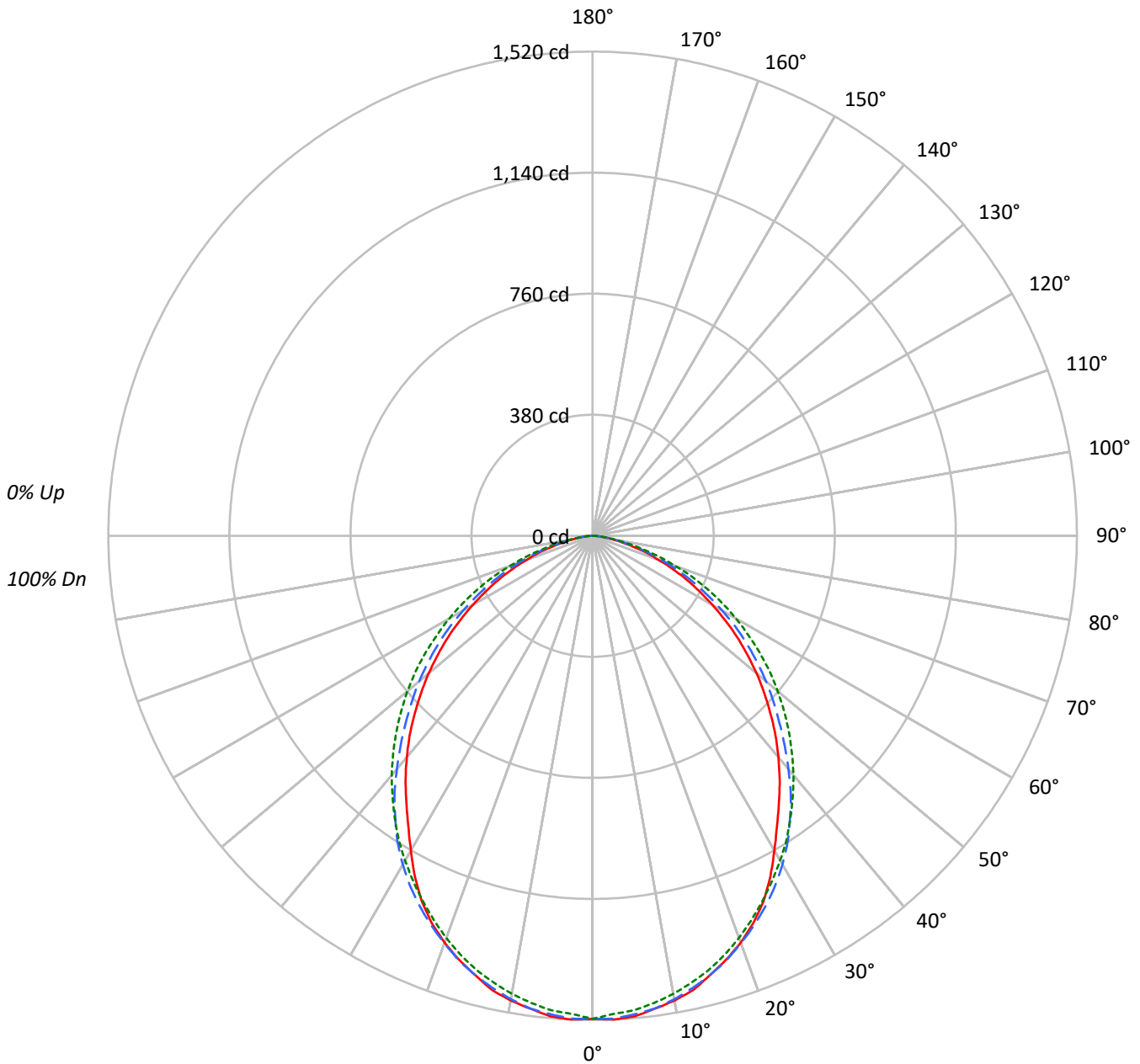
Lumens per Lamp: N/A
Luminaire Lumens: 3506.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	4080	4080	4080
5°	4091	4074	4039
10°	4048	4036	3990
15°	3976	3976	3930
20°	3892	3897	3847
25°	3763	3810	3750
30°	3544	3703	3658
35°	3349	3550	3555
40°	3186	3358	3446
45°	3004	3154	3316
50°	2812	2973	3175
55°	2594	2766	3004
60°	2336	2524	2793
65°	2062	2244	2541
70°	1718	1911	2159
75°	1351	1526	1690
80°	965	1074	1192
85°	630	630	593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.8	4.1
10°-20°	401.1	11.4
20°-30°	586.1	16.7
30°-40°	665.3	19.0
40°-50°	642.2	18.3
50°-60°	529.8	15.1
60°-70°	352.8	10.1
70°-80°	157.9	4.5
80°-90°	28.3	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°	1129.9	32.2
0°-40°	1795.1	51.2
0°-60°	2967.1	84.6
0°-90°	3506.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3506.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1516	1516	1516	1516	1516	
5°	1514	1514	1508	1500	1495	143
15°	1427	1431	1427	1421	1411	402
25°	1268	1277	1283	1274	1263	580
35°	1019	1033	1080	1086	1082	639
45°	789	803	829	867	871	609
55°	553	562	590	622	640	493
65°	324	333	352	378	399	321
75°	130	137	147	154	162	142
85°	20	20	20	19	19	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1516.3	1516.3	1516.3	1516.3	1516.3
2.5°	1520.3	1520.9	1517.4	1508.1	1502.3
5°	1514.5	1513.9	1508.1	1499.9	1495.3
7.5°	1497.6	1498.8	1497.0	1485.4	1479.0
10°	1481.3	1481.9	1477.2	1467.9	1460.3
12.5°	1460.3	1459.8	1453.3	1448.7	1436.5
15°	1427.1	1430.6	1427.1	1420.7	1410.8
17.5°	1395.1	1395.1	1397.4	1386.4	1378.8
20°	1359.0	1360.7	1360.7	1352.0	1343.3
22.5°	1317.0	1322.3	1324.0	1314.7	1304.2
25°	1267.5	1277.4	1283.3	1273.9	1262.9
27.5°	1207.5	1222.7	1240.1	1233.2	1220.9
30°	1140.5	1162.7	1191.8	1186.0	1177.2
32.5°	1077.0	1099.2	1139.4	1137.0	1132.4
35°	1019.4	1033.4	1080.5	1086.4	1082.3
37.5°	964.6	977.4	1021.7	1035.1	1031.6
40°	907.0	920.9	955.9	979.8	980.9
42.5°	849.9	863.3	891.8	926.2	926.2
45°	789.3	802.7	828.9	866.8	871.4
47.5°	729.9	743.9	769.5	807.3	814.9
50°	671.6	684.4	710.1	746.8	758.4
52.5°	611.0	625.0	650.1	683.9	700.8
55°	552.8	562.1	589.5	622.1	640.2
57.5°	492.2	501.0	531.8	559.8	578.4
60°	434.0	445.0	468.9	497.5	519.0
62.5°	378.0	389.7	410.1	435.1	459.6
65°	323.9	332.6	352.4	377.5	399.0
67.5°	271.4	279.0	298.8	316.3	339.0
70°	218.4	228.3	242.9	259.8	274.4
72.5°	175.9	180.0	192.2	204.5	219.6
75°	129.9	136.9	146.8	153.8	162.5
77.5°	93.2	97.3	103.1	108.9	117.1
80°	62.3	64.1	69.3	70.5	76.9
82.5°	37.9	39.0	40.2	40.8	43.1
85°	20.4	20.4	20.4	19.2	19.2
87.5°	11.7	11.7	9.9	8.2	5.8
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)