

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: P556236

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-81-96-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: P556236
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-35-UNV-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

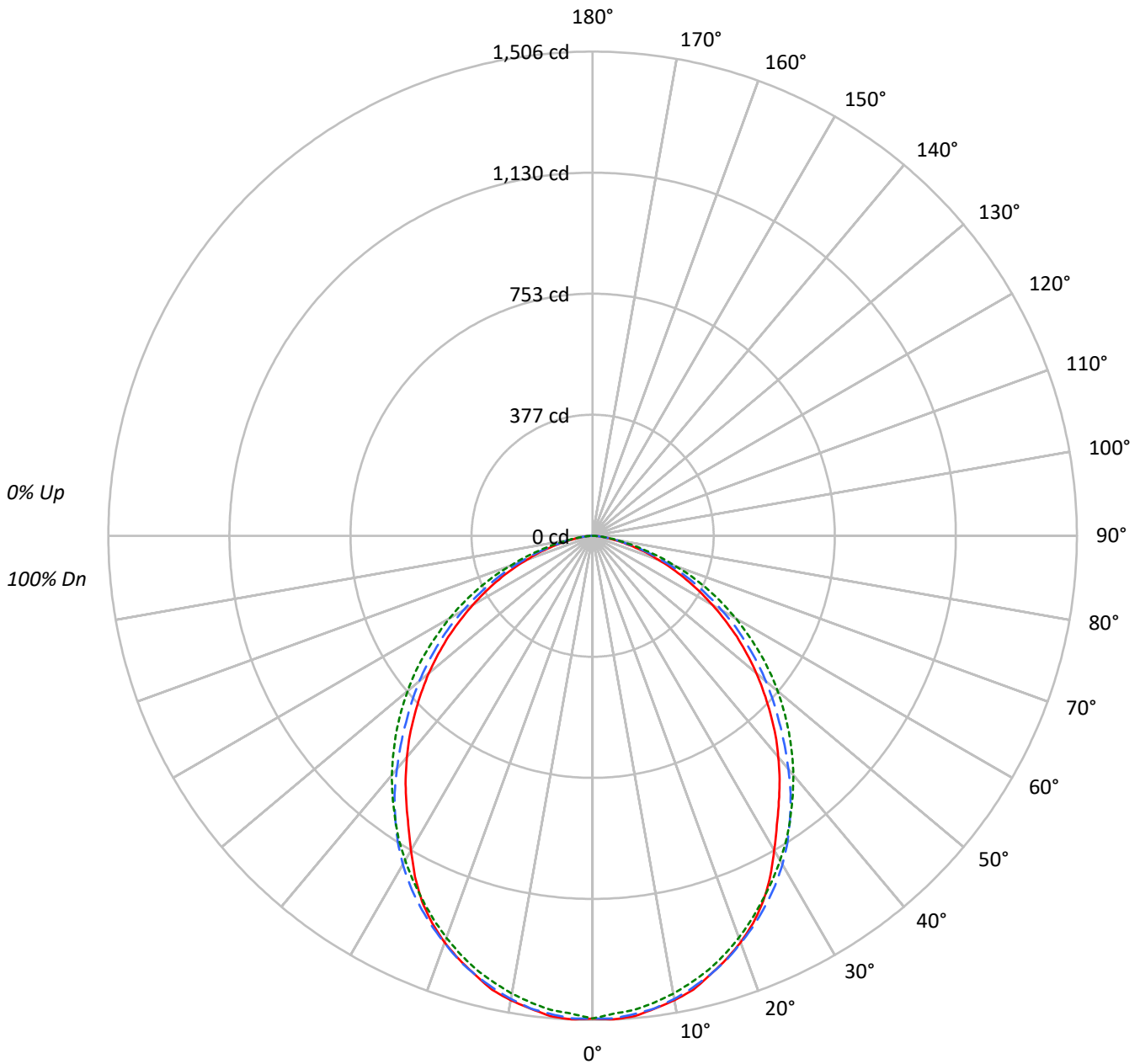
Lumens per Lamp: N/A
Luminaire Lumens: 3472.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4041	4041	4041
5°	4051	4034	4000
10°	4008	3997	3952
15°	3937	3937	3892
20°	3854	3859	3809
25°	3727	3773	3713
30°	3510	3667	3622
35°	3316	3515	3521
40°	3155	3325	3412
45°	2974	3124	3284
50°	2784	2944	3144
55°	2568	2739	2974
60°	2313	2499	2766
65°	2042	2222	2516
70°	1702	1892	2138
75°	1337	1512	1673
80°	956	1063	1179
85°	624	624	587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.4	4.1
10°-20°	397.2	11.4
20°-30°	580.4	16.7
30°-40°	658.8	19.0
40°-50°	636.0	18.3
50°-60°	524.6	15.1
60°-70°	349.4	10.1
70°-80°	156.3	4.5
80°-90°	28.0	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°	1118.9	32.2
0°-40°	1777.7	51.2
0°-60°	2938.3	84.6
0°-90°	3472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1502	1502	1502	1502	1502	
5°	1500	1499	1494	1485	1481	142
15°	1413	1417	1413	1407	1397	398
25°	1255	1265	1271	1262	1251	575
35°	1010	1023	1070	1076	1072	633
45°	782	795	821	858	863	603
55°	547	557	584	616	634	489
65°	321	329	349	374	395	318
75°	129	136	145	152	161	141
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1501.6	1501.6	1501.6	1501.6	1501.6
2.5°	1505.6	1506.2	1502.7	1493.5	1487.7
5°	1499.8	1499.2	1493.5	1485.4	1480.8
7.5°	1483.1	1484.2	1482.5	1471.0	1464.6
10°	1466.9	1467.5	1462.9	1453.7	1446.2
12.5°	1446.2	1445.6	1439.3	1434.6	1422.5
15°	1413.3	1416.8	1413.3	1406.9	1397.1
17.5°	1381.6	1381.6	1383.9	1372.9	1365.4
20°	1345.8	1347.5	1347.5	1338.9	1330.2
22.5°	1304.3	1309.5	1311.2	1302.0	1291.6
25°	1255.2	1265.0	1270.8	1261.6	1250.6
27.5°	1195.8	1210.8	1228.1	1221.2	1209.1
30°	1129.5	1151.4	1180.2	1174.5	1165.8
32.5°	1066.6	1088.5	1128.3	1126.0	1121.4
35°	1009.5	1023.3	1070.1	1075.8	1071.8
37.5°	955.3	968.0	1011.8	1025.1	1021.6
40°	898.2	912.0	946.6	970.3	971.4
42.5°	841.6	854.9	883.2	917.2	917.2
45°	781.6	794.9	820.9	858.4	863.0
47.5°	722.8	736.6	762.0	799.5	807.0
50°	665.1	677.8	703.2	739.5	751.1
52.5°	605.1	619.0	643.8	677.2	694.0
55°	547.4	556.7	583.8	616.1	634.0
57.5°	487.4	496.1	526.7	554.4	572.8
60°	429.8	440.7	464.4	492.6	514.0
62.5°	374.4	385.9	406.1	430.9	455.1
65°	320.7	329.4	349.0	373.8	395.1
67.5°	268.8	276.3	295.9	313.2	335.7
70°	216.3	226.1	240.5	257.3	271.7
72.5°	174.2	178.2	190.4	202.5	217.5
75°	128.6	135.6	145.4	152.3	160.9
77.5°	92.3	96.3	102.1	107.9	115.9
80°	61.7	63.5	68.6	69.8	76.1
82.5°	37.5	38.6	39.8	40.4	42.7
85°	20.2	20.2	20.2	19.0	19.0
87.5°	11.5	11.5	9.8	8.1	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)