

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: P557056

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-81-84-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: P557056
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-LD4-2HI-40-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

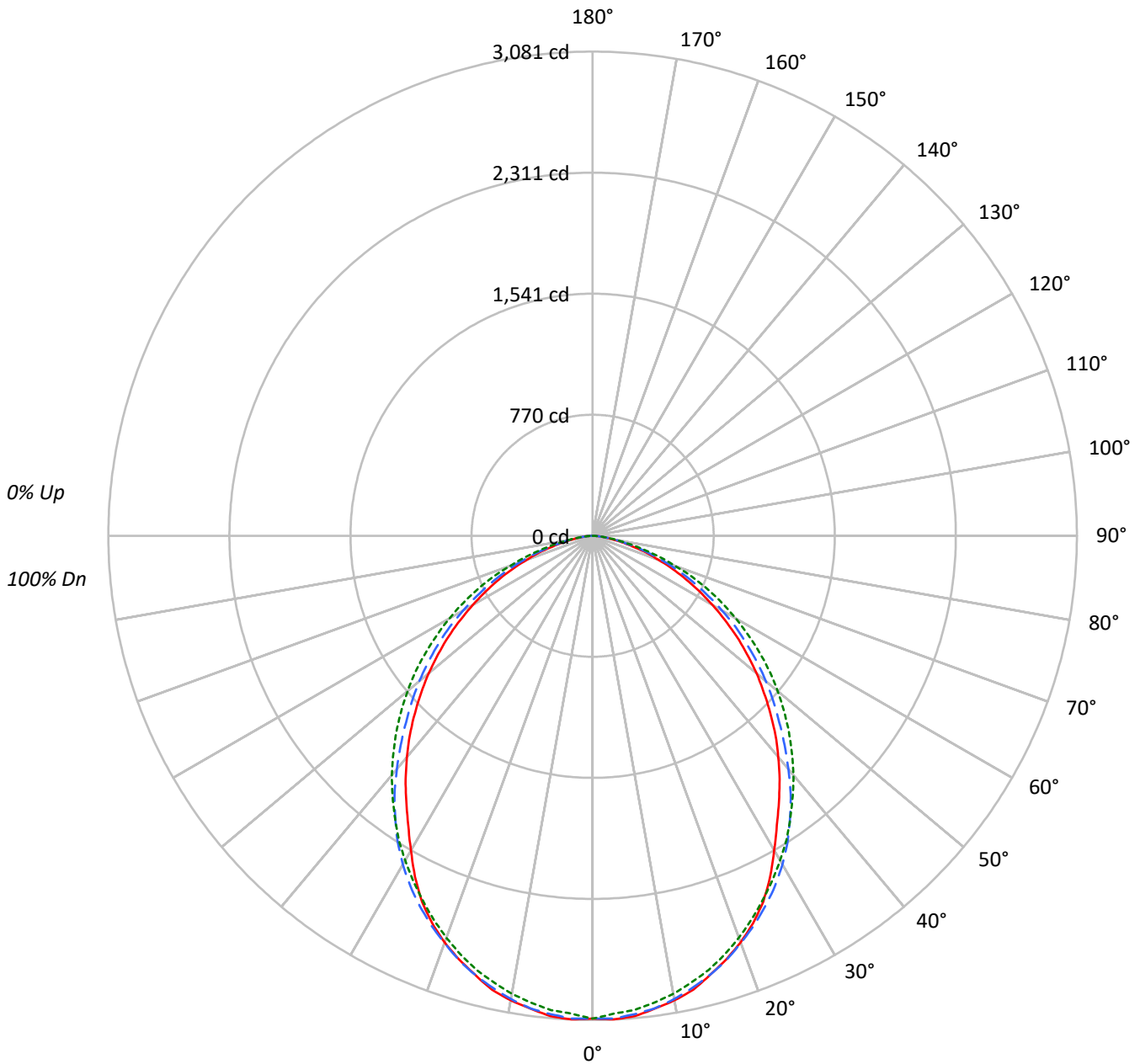
Lumens per Lamp: N/A
Luminaire Lumens: 7104.0 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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				20				
RC	80				70				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°	8267	8267	8267
5°	8290	8255	8184
10°	8202	8179	8085
15°	8056	8056	7964
20°	7885	7896	7794
25°	7626	7720	7598
30°	7181	7504	7412
35°	6785	7192	7204
40°	6456	6804	6982
45°	6086	6392	6720
50°	5697	6023	6433
55°	5255	5604	6085
60°	4732	5113	5660
65°	4178	4547	5148
70°	3482	3873	4374
75°	2737	3092	3424
80°	1957	2177	2414
85°	1275	1275	1201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.3	4.1
10°-20°	812.6	11.4
20°-30°	1187.5	16.7
30°-40°	1348.0	19.0
40°-50°	1301.3	18.3
50°-60°	1073.4	15.1
60°-70°	714.8	10.1
70°-80°	319.9	4.5
80°-90°	57.2	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°	2289.4	32.2
0°-40°	3637.4	51.2
0°-60°	6012.1	84.6
0°-90°	7104.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7104.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3072	3072	3072	3072	3072	
5°	3069	3068	3056	3039	3030	290
15°	2892	2899	2892	2879	2859	815
25°	2568	2588	2600	2581	2559	1176
35°	2066	2094	2189	2201	2193	1294
45°	1599	1626	1680	1756	1766	1234
55°	1120	1139	1194	1261	1297	1000
65°	656	674	714	765	808	651
75°	263	277	297	312	329	288
85°	41	41	41	39	39	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3072.3	3072.3	3072.3	3072.3	3072.3
2.5°	3080.6	3081.7	3074.7	3055.8	3044.0
5°	3068.8	3067.6	3055.8	3039.2	3029.8
7.5°	3034.5	3036.9	3033.3	3009.7	2996.8
10°	3001.5	3002.7	2993.2	2974.3	2959.0
12.5°	2959.0	2957.8	2944.8	2935.4	2910.6
15°	2891.7	2898.8	2891.7	2878.7	2858.7
17.5°	2826.8	2826.8	2831.5	2809.1	2793.7
20°	2753.6	2757.2	2757.2	2739.5	2721.8
22.5°	2668.6	2679.3	2682.8	2663.9	2642.7
25°	2568.3	2588.4	2600.2	2581.3	2558.9
27.5°	2446.7	2477.4	2512.8	2498.7	2473.9
30°	2311.0	2355.9	2414.9	2403.1	2385.4
32.5°	2182.4	2227.2	2308.6	2303.9	2294.5
35°	2065.5	2093.8	2189.4	2201.2	2193.0
37.5°	1954.6	1980.5	2070.2	2097.4	2090.3
40°	1837.7	1866.0	1936.9	1985.2	1987.6
42.5°	1722.0	1749.2	1807.0	1876.7	1876.7
45°	1599.3	1626.4	1679.6	1756.3	1765.7
47.5°	1478.9	1507.2	1559.2	1635.9	1651.2
50°	1360.9	1386.8	1438.8	1513.1	1536.7
52.5°	1238.1	1266.5	1317.2	1385.7	1419.9
55°	1120.1	1139.0	1194.5	1260.6	1297.1
57.5°	997.3	1015.0	1077.6	1134.3	1172.0
60°	879.3	901.7	950.1	1008.0	1051.6
62.5°	766.0	789.6	830.9	881.7	931.2
65°	656.2	673.9	714.1	764.8	808.5
67.5°	550.0	565.4	605.5	640.9	686.9
70°	442.6	462.7	492.2	526.4	555.9
72.5°	356.4	364.7	389.5	414.3	445.0
75°	263.2	277.4	297.4	311.6	329.3
77.5°	188.8	197.1	208.9	220.7	237.2
80°	126.3	129.8	140.5	142.8	155.8
82.5°	76.7	79.1	81.4	82.6	87.3
85°	41.3	41.3	41.3	38.9	38.9
87.5°	23.6	23.6	20.1	16.5	11.8
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)