

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: P556224

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-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: P556224
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-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

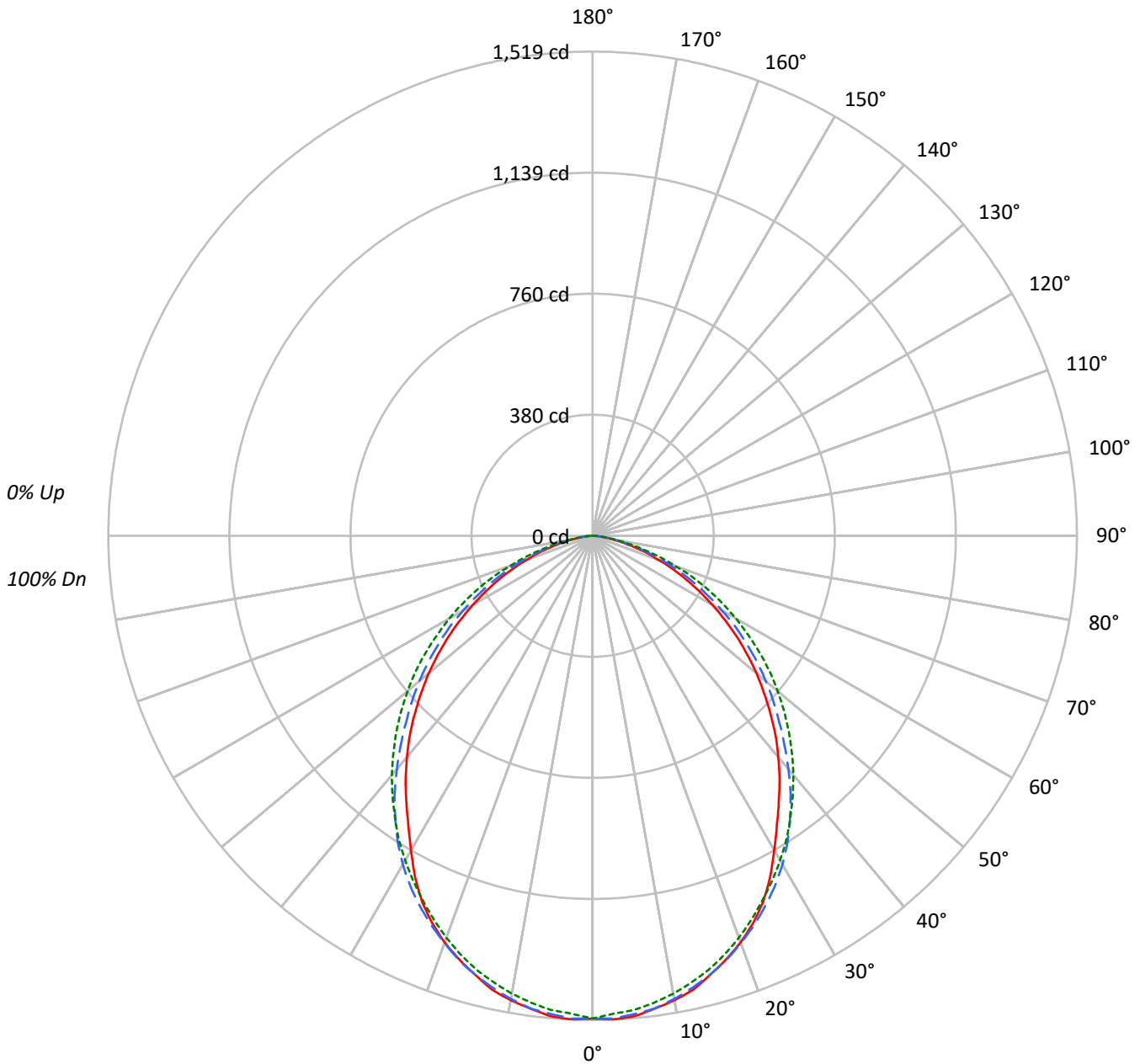
Lumens per Lamp: N/A
Luminaire Lumens: 3502.0 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4075	4075	4075
5°	4086	4069	4035
10°	4043	4032	3986
15°	3971	3971	3926
20°	3887	3892	3842
25°	3759	3806	3745
30°	3540	3699	3654
35°	3345	3546	3551
40°	3182	3354	3442
45°	3000	3151	3312
50°	2809	2969	3172
55°	2591	2762	3000
60°	2333	2521	2790
65°	2060	2241	2538
70°	1717	1909	2156
75°	1349	1524	1687
80°	965	1072	1190
85°	630	630	593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.6	4.1
10°-20°	400.6	11.4
20°-30°	585.4	16.7
30°-40°	664.5	19.0
40°-50°	641.5	18.3
50°-60°	529.2	15.1
60°-70°	352.4	10.1
70°-80°	157.7	4.5
80°-90°	28.2	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°	1128.6	32.2
0°-40°	1793.1	51.2
0°-60°	2963.7	84.6
0°-90°	3502.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3502.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1514	1514	1514	1514	1514	
5°	1513	1512	1506	1498	1494	143
15°	1426	1429	1426	1419	1409	402
25°	1266	1276	1282	1272	1261	580
35°	1018	1032	1079	1085	1081	638
45°	788	802	828	866	870	608
55°	552	562	589	621	639	493
65°	324	332	352	377	399	321
75°	130	137	147	154	162	142
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°	1514.5	1514.5	1514.5	1514.5	1514.5
2.5°	1518.6	1519.2	1515.7	1506.4	1500.6
5°	1512.8	1512.2	1506.4	1498.2	1493.6
7.5°	1495.9	1497.1	1495.3	1483.7	1477.3
10°	1479.6	1480.2	1475.5	1466.2	1458.7
12.5°	1458.7	1458.1	1451.7	1447.0	1434.8
15°	1425.5	1429.0	1425.5	1419.1	1409.2
17.5°	1393.5	1393.5	1395.8	1384.8	1377.2
20°	1357.4	1359.2	1359.2	1350.4	1341.7
22.5°	1315.5	1320.8	1322.5	1313.2	1302.7
25°	1266.1	1276.0	1281.8	1272.5	1261.4
27.5°	1206.2	1221.3	1238.7	1231.8	1219.5
30°	1139.2	1161.3	1190.4	1184.6	1175.9
32.5°	1075.8	1097.9	1138.1	1135.7	1131.1
35°	1018.2	1032.2	1079.3	1085.1	1081.1
37.5°	963.5	976.3	1020.5	1033.9	1030.4
40°	905.9	919.9	954.8	978.7	979.8
42.5°	848.9	862.3	890.8	925.1	925.1
45°	788.4	801.8	828.0	865.8	870.4
47.5°	729.0	743.0	768.6	806.4	814.0
50°	670.9	683.7	709.3	745.9	757.6
52.5°	610.3	624.3	649.3	683.1	700.0
55°	552.2	561.5	588.8	621.4	639.4
57.5°	491.7	500.4	531.2	559.1	577.8
60°	433.5	444.5	468.4	496.9	518.4
62.5°	377.6	389.2	409.6	434.6	459.1
65°	323.5	332.2	352.0	377.0	398.6
67.5°	271.1	278.7	298.5	315.9	338.6
70°	218.2	228.1	242.6	259.5	274.0
72.5°	175.7	179.8	192.0	204.2	219.4
75°	129.7	136.7	146.6	153.6	162.3
77.5°	93.1	97.2	103.0	108.8	116.9
80°	62.3	64.0	69.2	70.4	76.8
82.5°	37.8	39.0	40.1	40.7	43.1
85°	20.4	20.4	20.4	19.2	19.2
87.5°	11.6	11.6	9.9	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)