

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: P556751

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-97-EDD**

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: P556751
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-LD4-1STD-35-UNV-81-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

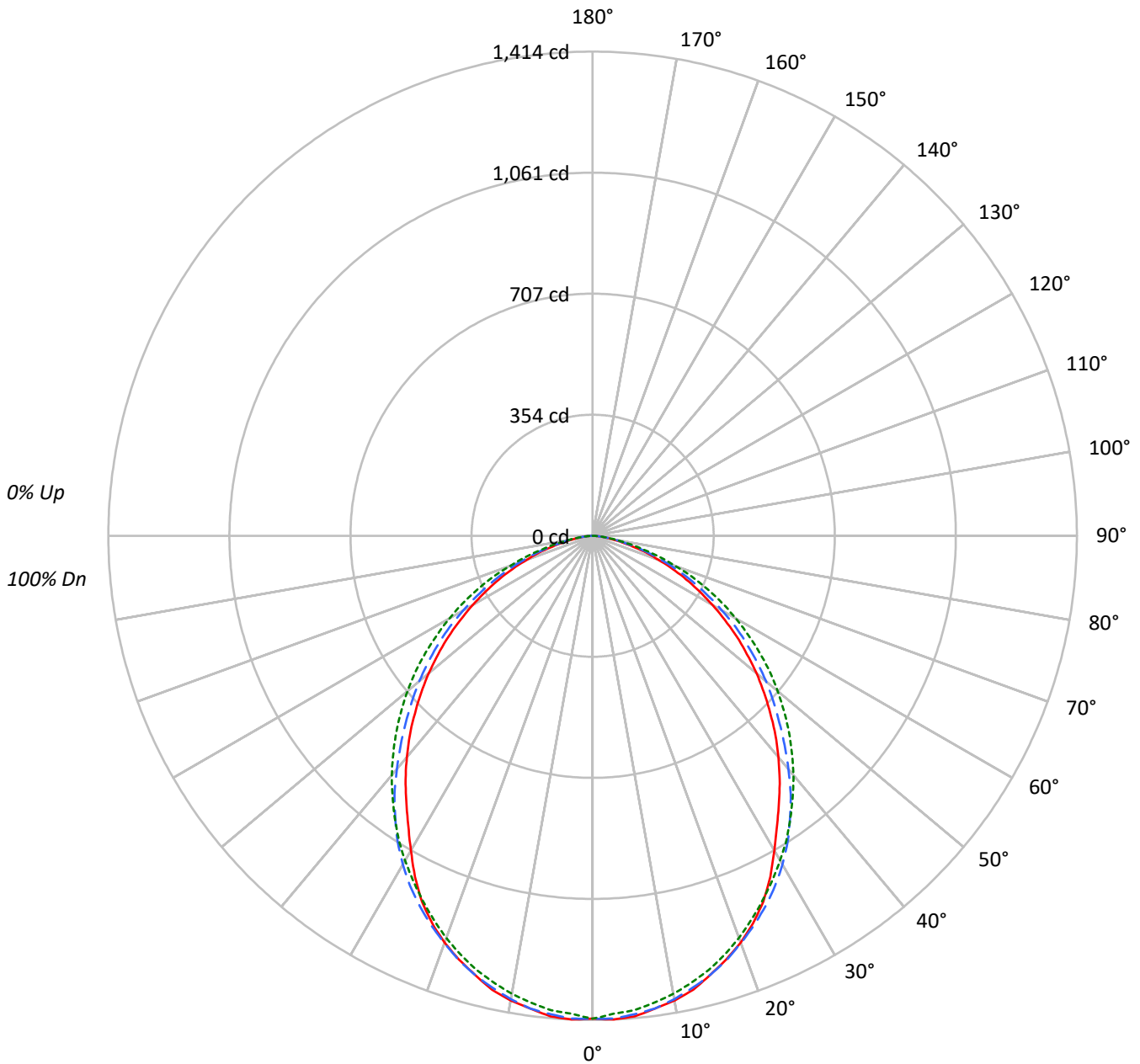
Lumens per Lamp: N/A
Luminaire Lumens: 3261.0 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3795	3795	3795
5°	3805	3789	3757
10°	3765	3754	3712
15°	3698	3698	3656
20°	3620	3624	3578
25°	3501	3544	3488
30°	3296	3444	3402
35°	3115	3302	3307
40°	2963	3123	3205
45°	2794	2934	3084
50°	2615	2765	2953
55°	2412	2572	2793
60°	2172	2347	2598
65°	1918	2087	2363
70°	1599	1777	2008
75°	1256	1419	1572
80°	899	1000	1108
85°	587	587	553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.8	4.1
10°-20°	373.0	11.4
20°-30°	545.1	16.7
30°-40°	618.8	19.0
40°-50°	597.3	18.3
50°-60°	492.7	15.1
60°-70°	328.1	10.1
70°-80°	146.8	4.5
80°-90°	26.3	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°	1050.9	32.2
0°-40°	1669.7	51.2
0°-60°	2759.8	84.6
0°-90°	3261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3261.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1410	1410	1410	1410	1410	
5°	1409	1408	1403	1395	1391	133
15°	1327	1331	1327	1321	1312	374
25°	1179	1188	1194	1185	1175	540
35°	948	961	1005	1010	1007	594
45°	734	747	771	806	810	566
55°	514	523	548	579	595	459
65°	301	309	328	351	371	299
75°	121	127	136	143	151	132
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°	1410.3	1410.3	1410.3	1410.3	1410.3
2.5°	1414.1	1414.6	1411.4	1402.7	1397.3
5°	1408.7	1408.1	1402.7	1395.1	1390.8
7.5°	1393.0	1394.0	1392.4	1381.6	1375.6
10°	1377.8	1378.3	1374.0	1365.3	1358.3
12.5°	1358.3	1357.7	1351.8	1347.4	1336.1
15°	1327.4	1330.7	1327.4	1321.4	1312.2
17.5°	1297.6	1297.6	1299.8	1289.5	1282.4
20°	1264.0	1265.6	1265.6	1257.5	1249.4
22.5°	1225.0	1229.9	1231.5	1222.8	1213.1
25°	1179.0	1188.2	1193.6	1184.9	1174.6
27.5°	1123.1	1137.2	1153.5	1147.0	1135.6
30°	1060.8	1081.4	1108.5	1103.1	1095.0
32.5°	1001.8	1022.4	1059.8	1057.6	1053.3
35°	948.1	961.1	1005.0	1010.5	1006.7
37.5°	897.2	909.1	950.3	962.8	959.5
40°	843.6	856.6	889.1	911.3	912.4
42.5°	790.5	802.9	829.5	861.5	861.5
45°	734.1	746.6	771.0	806.2	810.5
47.5°	678.9	691.9	715.7	750.9	758.0
50°	624.7	636.6	660.5	694.6	705.4
52.5°	568.3	581.3	604.6	636.1	651.8
55°	514.2	522.8	548.3	578.6	595.4
57.5°	457.8	465.9	494.7	520.7	538.0
60°	403.6	413.9	436.1	462.7	482.7
62.5°	351.6	362.5	381.4	404.7	427.5
65°	301.2	309.4	327.8	351.1	371.1
67.5°	252.5	259.5	277.9	294.2	315.3
70°	203.2	212.4	225.9	241.6	255.2
72.5°	163.6	167.4	178.8	190.2	204.3
75°	120.8	127.3	136.5	143.0	151.2
77.5°	86.7	90.5	95.9	101.3	108.9
80°	58.0	59.6	64.5	65.6	71.5
82.5°	35.2	36.3	37.4	37.9	40.1
85°	19.0	19.0	19.0	17.9	17.9
87.5°	10.8	10.8	9.2	7.6	5.4
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)