

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: P556719

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-93-97-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: P556719
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-30-UNV-93-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND
3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

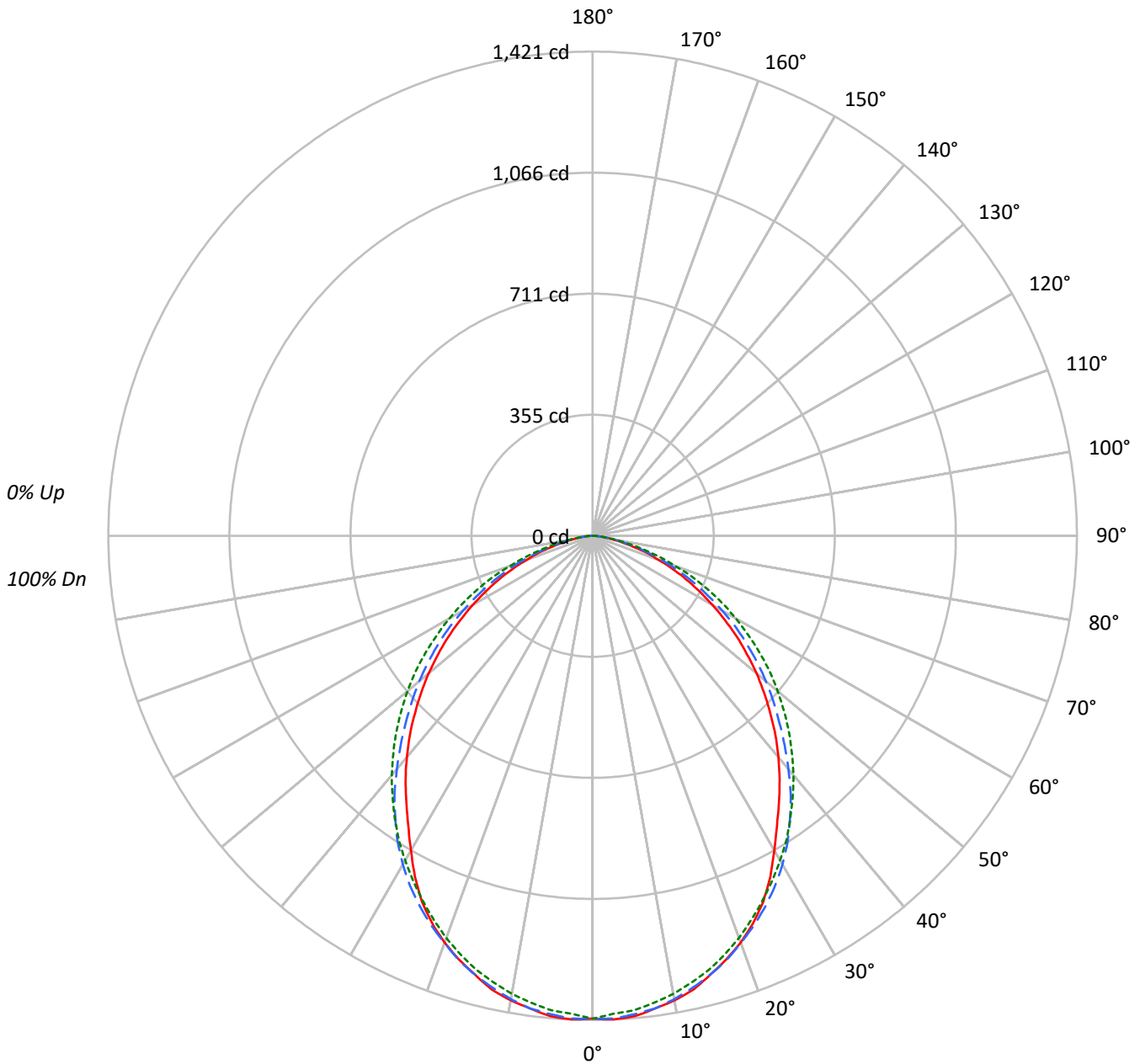
Lumens per Lamp: N/A
Luminaire Lumens: 3277.0 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3814	3814	3814
5°	3824	3808	3775
10°	3783	3773	3730
15°	3716	3716	3674
20°	3637	3642	3595
25°	3518	3561	3505
30°	3312	3462	3419
35°	3130	3318	3323
40°	2978	3139	3221
45°	2807	2949	3100
50°	2628	2779	2968
55°	2424	2585	2807
60°	2183	2359	2611
65°	1927	2097	2375
70°	1607	1786	2017
75°	1262	1426	1579
80°	903	1004	1114
85°	590	590	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	4.1
10°-20°	374.9	11.4
20°-30°	547.8	16.7
30°-40°	621.8	19.0
40°-50°	600.3	18.3
50°-60°	495.2	15.1
60°-70°	329.7	10.1
70°-80°	147.5	4.5
80°-90°	26.4	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°	1056.1	32.2
0°-40°	1677.9	51.2
0°-60°	2773.3	84.6
0°-90°	3277.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3277.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1417	1417	1417	1417	1417	
5°	1416	1415	1410	1402	1398	134
15°	1334	1337	1334	1328	1319	376
25°	1185	1194	1199	1191	1180	543
35°	953	966	1010	1015	1012	597
45°	738	750	775	810	814	569
55°	517	525	551	582	598	461
65°	303	311	329	353	373	300
75°	121	128	137	144	152	133
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°	1417.2	1417.2	1417.2	1417.2	1417.2
2.5°	1421.0	1421.6	1418.3	1409.6	1404.2
5°	1415.6	1415.0	1409.6	1402.0	1397.6
7.5°	1399.8	1400.9	1399.3	1388.4	1382.4
10°	1384.6	1385.1	1380.7	1372.0	1365.0
12.5°	1365.0	1364.4	1358.4	1354.1	1342.6
15°	1333.9	1337.2	1333.9	1327.9	1318.7
17.5°	1304.0	1304.0	1306.1	1295.8	1288.7
20°	1270.2	1271.8	1271.8	1263.7	1255.5
22.5°	1231.0	1235.9	1237.5	1228.8	1219.0
25°	1184.7	1194.0	1199.4	1190.7	1180.4
27.5°	1128.7	1142.8	1159.1	1152.6	1141.2
30°	1066.0	1086.7	1114.0	1108.5	1100.3
32.5°	1006.7	1027.4	1065.0	1062.8	1058.4
35°	952.8	965.9	1010.0	1015.4	1011.6
37.5°	901.6	913.6	955.0	967.5	964.2
40°	847.7	860.8	893.5	915.8	916.9
42.5°	794.4	806.9	833.6	865.7	865.7
45°	737.7	750.3	774.8	810.1	814.5
47.5°	682.2	695.3	719.2	754.6	761.7
50°	627.8	639.7	663.7	698.0	708.9
52.5°	571.1	584.2	607.6	639.2	655.0
55°	516.7	525.4	551.0	581.5	598.4
57.5°	460.1	468.2	497.1	523.2	540.6
60°	405.6	416.0	438.3	465.0	485.1
62.5°	353.4	364.2	383.3	406.7	429.6
65°	302.7	310.9	329.4	352.8	373.0
67.5°	253.7	260.8	279.3	295.6	316.9
70°	204.2	213.4	227.0	242.8	256.4
72.5°	164.4	168.2	179.7	191.1	205.3
75°	121.4	127.9	137.2	143.7	151.9
77.5°	87.1	90.9	96.4	101.8	109.4
80°	58.3	59.9	64.8	65.9	71.9
82.5°	35.4	36.5	37.6	38.1	40.3
85°	19.1	19.1	19.1	18.0	18.0
87.5°	10.9	10.9	9.3	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)