

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: P556720

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-80-84-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: P556720
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-80-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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

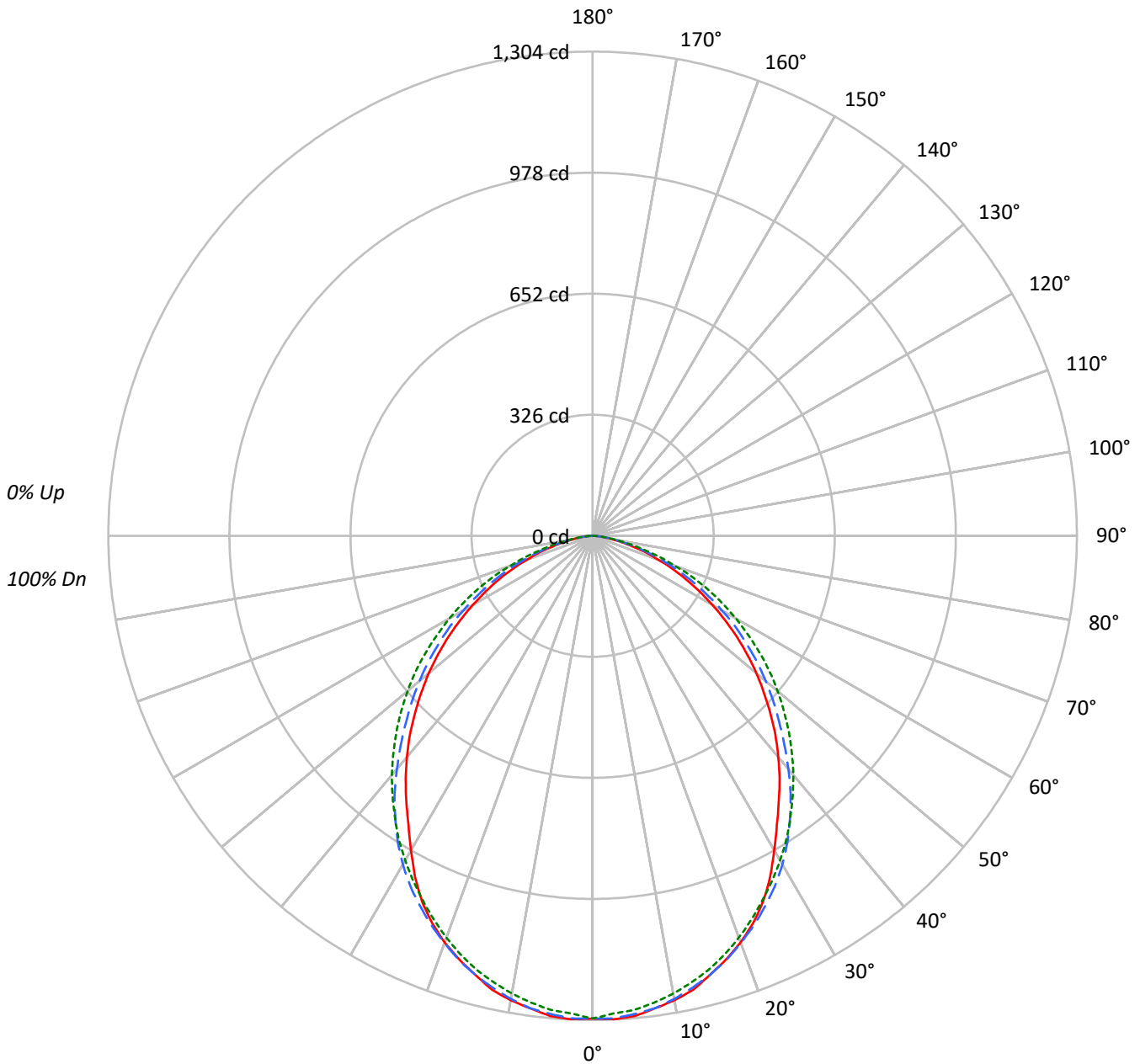
Lumens per Lamp: N/A
Luminaire Lumens: 3006.0 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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°	3498	3498	3498
5°	3508	3493	3463
10°	3471	3461	3421
15°	3409	3409	3370
20°	3337	3341	3298
25°	3227	3267	3215
30°	3039	3175	3136
35°	2871	3043	3048
40°	2732	2879	2954
45°	2575	2705	2843
50°	2411	2549	2722
55°	2224	2371	2575
60°	2003	2164	2395
65°	1768	1924	2178
70°	1474	1639	1851
75°	1158	1309	1448
80°	828	921	1021
85°	540	540	509



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.4	4.1
10°-20°	343.9	11.4
20°-30°	502.5	16.7
30°-40°	570.4	19.0
40°-50°	550.6	18.3
50°-60°	454.2	15.1
60°-70°	302.5	10.1
70°-80°	135.3	4.5
80°-90°	24.2	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°	968.7	32.2
0°-40°	1539.1	51.2
0°-60°	2544.0	84.6
0°-90°	3006.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3006.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1300	1300	1300	1300	1300	
5°	1298	1298	1293	1286	1282	123
15°	1224	1227	1224	1218	1210	345
25°	1087	1095	1100	1092	1083	498
35°	874	886	926	931	928	548
45°	677	688	711	743	747	522
55°	474	482	505	533	549	423
65°	278	285	302	324	342	275
75°	111	117	126	132	139	122
85°	18	18	18	16	16	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1300.0	1300.0	1300.0	1300.0	1300.0
2.5°	1303.5	1304.0	1301.0	1293.0	1288.0
5°	1298.5	1298.0	1293.0	1286.0	1282.0
7.5°	1284.0	1285.0	1283.5	1273.5	1268.1
10°	1270.1	1270.6	1266.6	1258.6	1252.1
12.5°	1252.1	1251.6	1246.1	1242.1	1231.6
15°	1223.6	1226.6	1223.6	1218.1	1209.6
17.5°	1196.1	1196.1	1198.1	1188.6	1182.2
20°	1165.2	1166.7	1166.7	1159.2	1151.7
22.5°	1129.2	1133.7	1135.2	1127.2	1118.2
25°	1086.8	1095.3	1100.2	1092.3	1082.8
27.5°	1035.3	1048.3	1063.3	1057.3	1046.8
30°	977.9	996.9	1021.8	1016.8	1009.3
32.5°	923.4	942.4	976.9	974.9	970.9
35°	874.0	886.0	926.4	931.4	927.9
37.5°	827.1	838.0	876.0	887.5	884.5
40°	777.6	789.6	819.6	840.0	841.0
42.5°	728.7	740.2	764.6	794.1	794.1
45°	676.7	688.2	710.7	743.2	747.1
47.5°	625.8	637.8	659.7	692.2	698.7
50°	575.8	586.8	608.8	640.3	650.3
52.5°	523.9	535.9	557.4	586.3	600.8
55°	474.0	482.0	505.4	533.4	548.9
57.5°	422.0	429.5	456.0	480.0	495.9
60°	372.1	381.6	402.0	426.5	445.0
62.5°	324.1	334.1	351.6	373.1	394.1
65°	277.7	285.2	302.2	323.6	342.1
67.5°	232.7	239.2	256.2	271.2	290.7
70°	187.3	195.8	208.3	222.7	235.2
72.5°	150.8	154.3	164.8	175.3	188.3
75°	111.4	117.4	125.9	131.8	139.3
77.5°	79.9	83.4	88.4	93.4	100.4
80°	53.4	54.9	59.4	60.4	65.9
82.5°	32.5	33.5	34.5	35.0	37.0
85°	17.5	17.5	17.5	16.5	16.5
87.5°	10.0	10.0	8.5	7.0	5.0
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)