

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: P557686

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-80-87-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: P557686
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-LD4-3HI-30-UNV-80-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

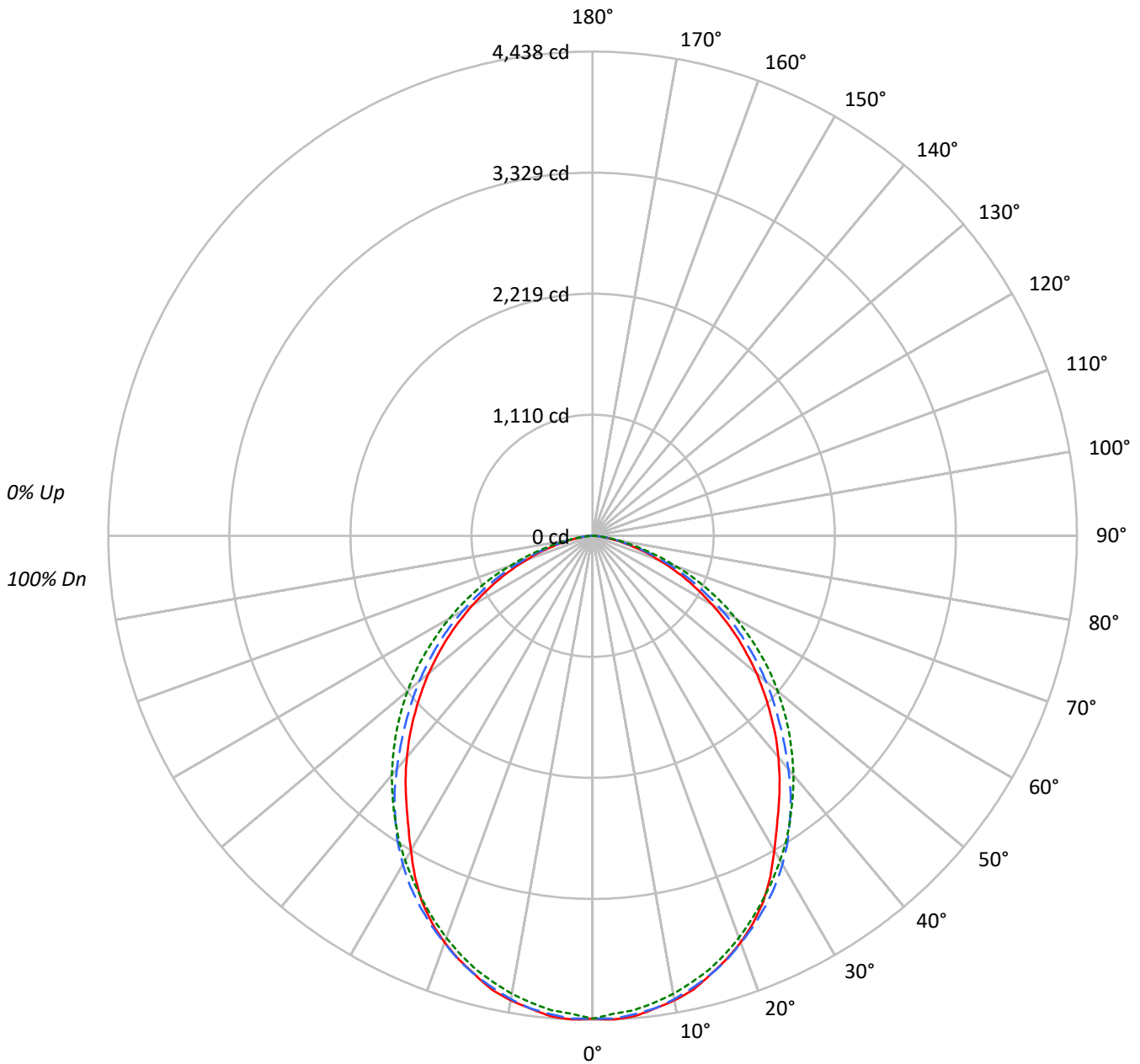
Lumens per Lamp: N/A
Luminaire Lumens: 10234.0 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	11910	11910	11910
5°	11942	11891	11790
10°	11815	11783	11648
15°	11606	11606	11473
20°	11360	11375	11228
25°	10986	11122	10945
30°	10345	10810	10678
35°	9775	10361	10378
40°	9300	9801	10058
45°	8768	9208	9680
50°	8207	8677	9268
55°	7570	8073	8767
60°	6817	7367	8154
65°	6020	6550	7416
70°	5017	5578	6301
75°	3943	4455	4932
80°	2819	3135	3477
85°	1837	1837	1732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	416.7	4.1
10°-20°	1170.7	11.4
20°-30°	1710.7	16.7
30°-40°	1941.9	19.0
40°-50°	1874.6	18.3
50°-60°	1546.4	15.1
60°-70°	1029.8	10.1
70°-80°	460.8	4.5
80°-90°	82.4	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°	3298.1	32.2
0°-40°	5240.0	51.2
0°-60°	8661.0	84.6
0°-90°	10234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10234.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4426	4426	4426	4426	4426	
5°	4421	4419	4402	4378	4365	418
15°	4166	4176	4166	4147	4118	1174
25°	3700	3729	3746	3719	3686	1694
35°	2976	3016	3154	3171	3159	1864
45°	2304	2343	2420	2530	2544	1778
55°	1614	1641	1721	1816	1869	1440
65°	945	971	1029	1102	1165	937
75°	379	400	428	449	474	415
85°	60	60	60	56	56	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4425.9	4425.9	4425.9	4425.9	4425.9
2.5°	4437.8	4439.5	4429.3	4402.1	4385.1
5°	4420.8	4419.1	4402.1	4378.3	4364.7
7.5°	4371.5	4374.9	4369.8	4335.8	4317.1
10°	4323.9	4325.6	4312.0	4284.8	4262.7
12.5°	4262.7	4261.0	4242.3	4228.7	4193.0
15°	4165.8	4176.0	4165.8	4147.1	4118.2
17.5°	4072.3	4072.3	4079.1	4046.8	4024.7
20°	3966.9	3972.0	3972.0	3946.4	3920.9
22.5°	3844.4	3859.7	3864.8	3837.6	3807.0
25°	3699.9	3728.8	3745.8	3718.6	3686.3
27.5°	3524.8	3569.0	3620.0	3599.6	3563.9
30°	3329.2	3393.8	3478.9	3461.9	3436.4
32.5°	3143.9	3208.5	3325.8	3319.0	3305.4
35°	2975.6	3016.4	3154.1	3171.1	3159.2
37.5°	2815.7	2853.1	2982.4	3021.5	3011.3
40°	2647.4	2688.2	2790.2	2859.9	2863.3
42.5°	2480.8	2519.9	2603.2	2703.5	2703.5
45°	2303.9	2343.0	2419.6	2530.1	2543.7
47.5°	2130.5	2171.3	2246.1	2356.6	2378.8
50°	1960.5	1997.9	2072.7	2179.8	2213.8
52.5°	1783.6	1824.4	1897.6	1996.2	2045.5
55°	1613.6	1640.8	1720.7	1815.9	1868.7
57.5°	1436.8	1462.3	1552.4	1634.0	1688.4
60°	1266.7	1299.0	1368.8	1452.1	1515.0
62.5°	1103.5	1137.5	1197.0	1270.1	1341.6
65°	945.4	970.9	1028.7	1101.8	1164.7
67.5°	792.4	814.5	872.3	923.3	989.6
70°	637.6	666.5	709.0	758.3	800.9
72.5°	513.5	525.4	561.1	596.8	641.0
75°	379.2	399.6	428.5	448.9	474.4
77.5°	272.1	284.0	301.0	318.0	341.8
80°	181.9	187.0	202.3	205.7	224.4
82.5°	110.5	113.9	117.3	119.0	125.8
85°	59.5	59.5	59.5	56.1	56.1
87.5°	34.0	34.0	28.9	23.8	17.0
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)