

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: P557684

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-80-86-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: P557684
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-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

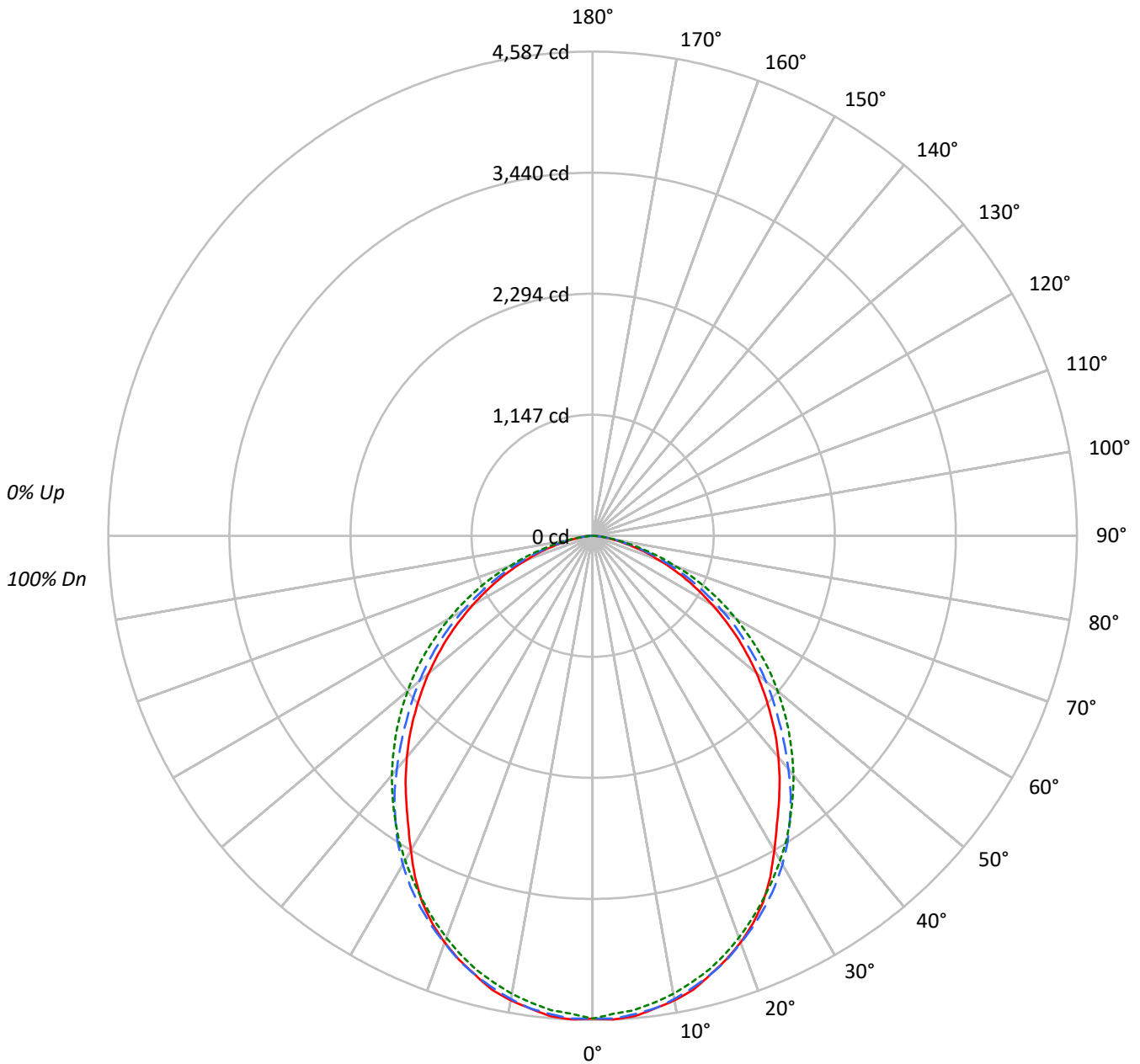
Lumens per Lamp: N/A
Luminaire Lumens: 10577.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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°	12309	12309	12309
5°	12342	12290	12185
10°	12211	12177	12038
15°	11994	11994	11857
20°	11741	11756	11605
25°	11354	11495	11312
30°	10692	11172	11035
35°	10103	10709	10726
40°	9611	10130	10395
45°	9062	9517	10005
50°	8483	8968	9579
55°	7824	8344	9061
60°	7046	7613	8427
65°	6222	6770	7665
70°	5185	5766	6512
75°	4075	4604	5098
80°	2913	3240	3595
85°	1899	1899	1791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	430.7	4.1
10°-20°	1209.9	11.4
20°-30°	1768.1	16.7
30°-40°	2007.0	19.0
40°-50°	1937.4	18.3
50°-60°	1598.2	15.1
60°-70°	1064.3	10.1
70°-80°	476.3	4.5
80°-90°	85.2	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°	3408.7	32.2
0°-40°	5415.6	51.2
0°-60°	8951.3	84.6
0°-90°	10577.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10577.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4574	4574	4574	4574	4574	
5°	4569	4567	4550	4525	4511	432
15°	4305	4316	4305	4286	4256	1214
25°	3824	3854	3871	3843	3810	1751
35°	3075	3118	3260	3277	3265	1927
45°	2381	2422	2501	2615	2629	1837
55°	1668	1696	1778	1877	1931	1488
65°	977	1003	1063	1139	1204	969
75°	392	413	443	464	490	429
85°	62	62	62	58	58	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4574.3	4574.3	4574.3	4574.3	4574.3
2.5°	4586.6	4588.3	4577.8	4549.7	4532.1
5°	4569.0	4567.3	4549.7	4525.1	4511.0
7.5°	4518.0	4521.6	4516.3	4481.1	4461.8
10°	4468.8	4470.6	4456.5	4428.4	4405.6
12.5°	4405.6	4403.8	4384.5	4370.4	4333.5
15°	4305.4	4316.0	4305.4	4286.1	4256.2
17.5°	4208.8	4208.8	4215.8	4182.4	4159.6
20°	4099.8	4105.1	4105.1	4078.7	4052.4
22.5°	3973.3	3989.1	3994.4	3966.2	3934.6
25°	3823.9	3853.8	3871.4	3843.2	3809.8
27.5°	3642.9	3688.6	3741.3	3720.2	3683.3
30°	3440.8	3507.6	3595.5	3577.9	3551.5
32.5°	3249.3	3316.0	3437.3	3430.3	3416.2
35°	3075.3	3117.5	3259.8	3277.4	3265.1
37.5°	2910.1	2948.8	3082.3	3122.7	3112.2
40°	2736.1	2778.3	2883.7	2955.8	2959.3
42.5°	2563.9	2604.3	2690.4	2794.1	2794.1
45°	2381.2	2421.6	2500.7	2614.9	2628.9
47.5°	2201.9	2244.1	2321.4	2435.6	2458.5
50°	2026.2	2064.8	2142.2	2252.9	2288.0
52.5°	1843.4	1885.6	1961.2	2063.1	2114.0
55°	1667.7	1695.8	1778.4	1876.8	1931.3
57.5°	1484.9	1511.3	1604.4	1688.8	1745.0
60°	1309.2	1342.6	1414.6	1500.7	1565.8
62.5°	1140.5	1175.6	1237.1	1312.7	1386.5
65°	977.1	1003.4	1063.2	1138.7	1203.8
67.5°	818.9	841.8	901.5	954.2	1022.8
70°	659.0	688.9	732.8	783.8	827.7
72.5°	530.7	543.0	579.9	616.8	662.5
75°	391.9	413.0	442.8	463.9	490.3
77.5°	281.2	293.5	311.0	328.6	353.2
80°	188.0	193.3	209.1	212.6	232.0
82.5°	114.2	117.7	121.3	123.0	130.0
85°	61.5	61.5	61.5	58.0	58.0
87.5°	35.1	35.1	29.9	24.6	17.6
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)