

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P563198

Luminaire Tested: FSR-24-4-LD4-3HI-50-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563198
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-3HI-50-UNV-80-97-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12263.0 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

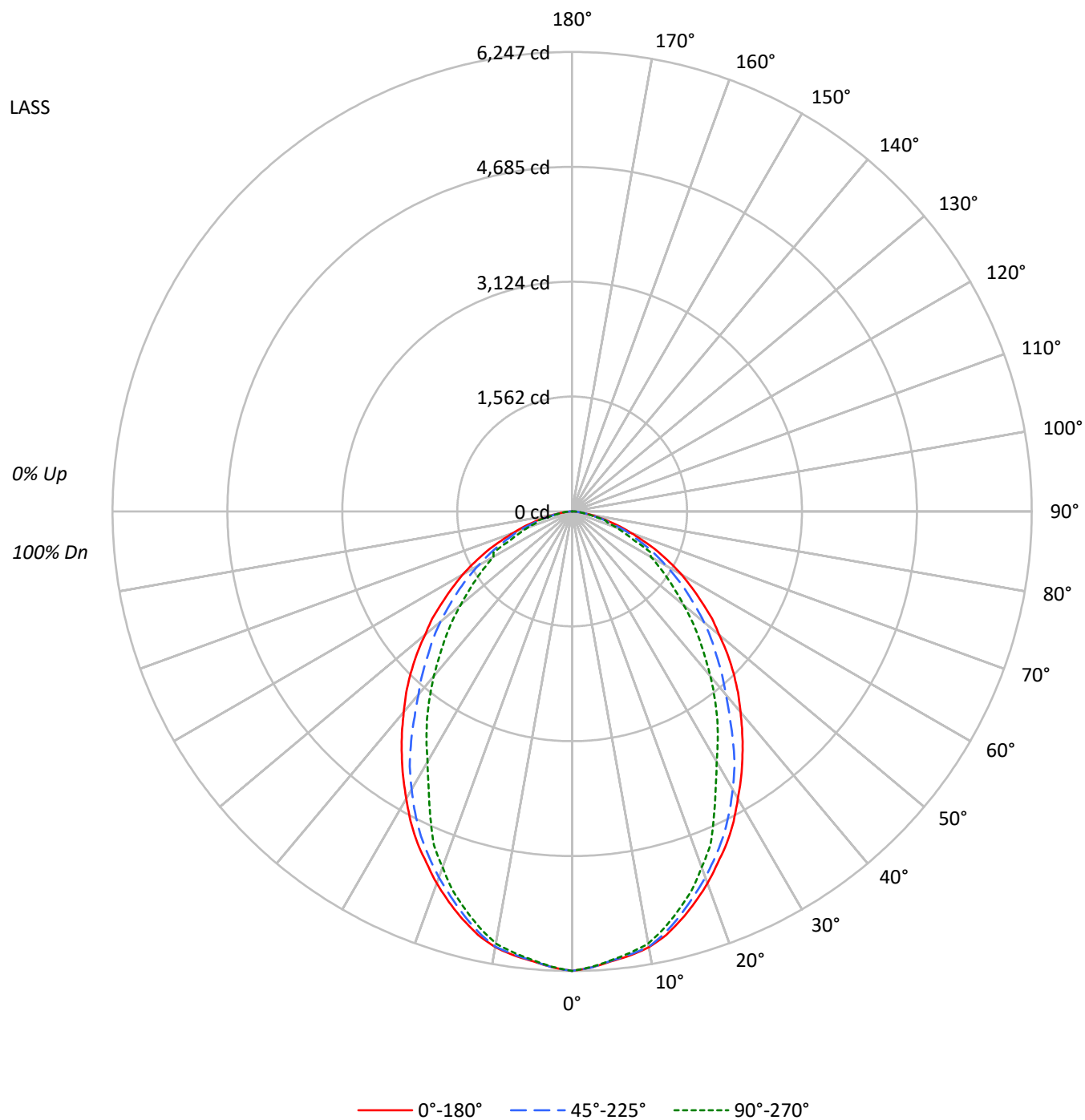
Input Watts (W): 129.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			
RW	70	50	30	10	70	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	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8405	8405	8405
5°	8291	8281	8271
10°	8219	8209	8150
15°	7997	7917	7806
20°	7703	7579	7372
25°	7387	7226	6776
30°	7001	6777	6103
35°	6631	6263	5646
40°	6253	5708	5137
45°	5895	5277	4645
50°	5457	4898	4142
55°	5048	4438	3710
60°	4625	3964	3323
65°	4069	3472	2943
70°	3352	3040	2500
75°	2665	2327	2440
80°	1791	1678	1567
85°	1115	1338	1561

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5895 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	581.5	4.7
10°-20°	1595.8	13.0
20°-30°	2209.3	18.0
30°-40°	2355.7	19.2
40°-50°	2149.1	17.5
50°-60°	1683.7	13.7
60°-70°	1097.3	8.9
70°-80°	486.2	4.0
80°-90°	104.4	0.9
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°	4386.6	35.8
0°-40°	6742.3	55.0
0°-60°	10575.1	86.2
0°-90°	12263.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12263.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6247	6247	6247	6247	6247	
5°	6138	6131	6131	6124	6124	583
15°	5741	5741	5683	5626	5604	1614
25°	4976	4947	4867	4694	4564	2284
35°	4037	4008	3813	3524	3437	2524
45°	3098	3033	2773	2542	2441	2386
55°	2152	2087	1892	1668	1582	1930
65°	1278	1206	1090	1112	924	1260
75°	513	477	448	426	469	550
85°	72	79	87	94	101	100
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6246.6	6246.6	6246.6	6246.6	6246.6
2.5°	6203.3	6203.3	6203.3	6196.1	6196.1
5°	6138.3	6131.1	6131.1	6123.8	6123.8
7.5°	6087.7	6080.5	6073.3	6066.1	6051.6
10°	6015.5	6015.5	6008.3	5972.2	5965.0
12.5°	5900.0	5892.8	5863.9	5813.3	5798.9
15°	5741.1	5741.1	5683.3	5625.6	5603.9
17.5°	5567.8	5560.6	5488.3	5430.6	5401.7
20°	5380.0	5365.6	5293.4	5199.5	5148.9
22.5°	5170.6	5170.6	5083.9	4961.2	4910.6
25°	4975.6	4946.7	4867.3	4694.0	4564.0
27.5°	4751.8	4708.4	4621.8	4376.2	4224.6
30°	4506.2	4484.6	4361.8	4044.0	3928.5
32.5°	4275.1	4239.0	4109.0	3776.9	3683.0
35°	4036.8	4007.9	3813.0	3524.1	3437.4
37.5°	3798.5	3762.4	3516.9	3285.8	3177.5
40°	3560.2	3516.9	3249.7	3040.3	2924.7
42.5°	3336.3	3278.6	3018.6	2794.7	2664.7
45°	3098.0	3033.0	2773.1	2542.0	2440.9
47.5°	2859.7	2801.9	2563.6	2325.3	2209.8
50°	2607.0	2556.4	2339.8	2101.5	1978.7
52.5°	2397.5	2318.1	2108.7	1870.4	1769.3
55°	2152.0	2087.0	1892.0	1668.2	1581.5
57.5°	1928.1	1863.2	1682.6	1473.2	1401.0
60°	1718.7	1624.8	1473.2	1292.7	1234.9
62.5°	1487.6	1415.4	1285.4	1133.8	1206.0
65°	1278.2	1206.0	1090.4	1112.1	924.4
67.5°	1047.1	1011.0	909.9	808.8	779.9
70°	852.1	808.8	772.7	664.4	635.5
72.5°	678.8	635.5	584.9	527.2	505.5
75°	512.7	476.6	447.7	426.1	469.4
77.5°	353.9	339.4	317.7	296.1	288.9
80°	231.1	223.9	216.6	209.4	202.2
82.5°	137.2	137.2	137.2	137.2	137.2
85°	72.2	79.4	86.7	93.9	101.1
87.5°	43.3	43.3	50.6	57.8	65.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)