

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: P558552

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558552
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-12-1-LD4-1HI-40-UNV-82-88-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 643.0 lumens
Efficiency: N/A
Efficacy: 59.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

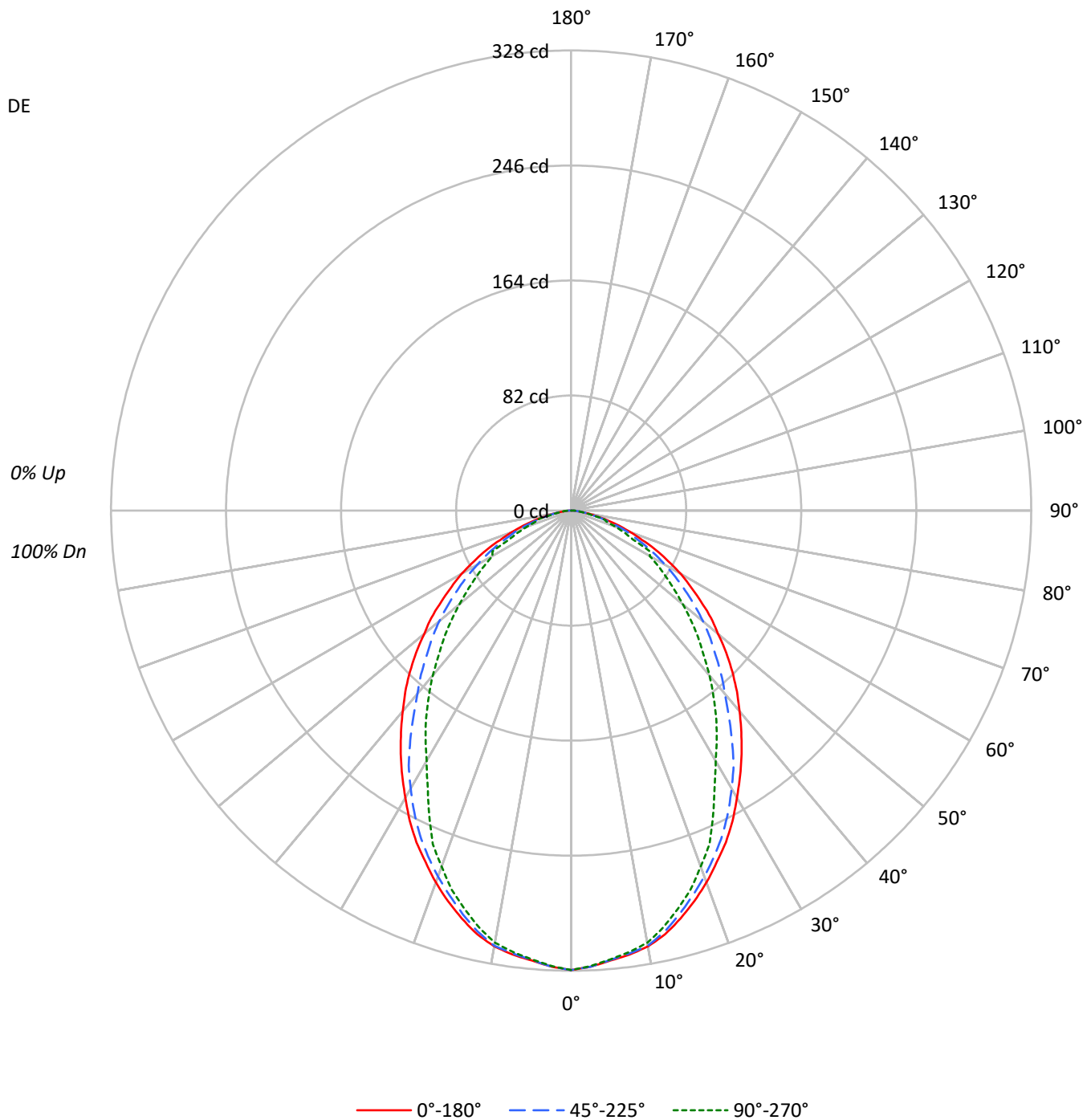
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	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					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75					75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65					65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56					56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44					44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40					40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33					33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3525	3525	3525
5°	3478	3474	3469
10°	3447	3443	3419
15°	3354	3321	3274
20°	3231	3180	3093
25°	3099	3031	2842
30°	2937	2843	2560
35°	2782	2627	2368
40°	2623	2394	2155
45°	2472	2213	1948
50°	2289	2055	1738
55°	2117	1862	1556
60°	1940	1662	1393
65°	1706	1457	1235
70°	1407	1275	1048
75°	1119	977	1023
80°	750	707	657
85°	469	556	655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2472 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.5	4.7
10°-20°	83.7	13.0
20°-30°	115.8	18.0
30°-40°	123.5	19.2
40°-50°	112.7	17.5
50°-60°	88.3	13.7
60°-70°	57.5	8.9
70°-80°	25.5	4.0
80°-90°	5.5	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°	230.0	35.8
0°-40°	353.5	55.0
0°-60°	554.5	86.2
0°-90°	643.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	643.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	328	328	328	328	328	
5°	322	322	322	321	321	31
15°	301	301	298	295	294	85
25°	261	259	255	246	239	120
35°	212	210	200	185	180	132
45°	162	159	145	133	128	125
55°	113	109	99	88	83	101
65°	67	63	57	58	48	66
75°	27	25	24	22	25	29
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	327.5	327.5	327.5	327.5	327.5
2.5°	325.3	325.3	325.3	324.9	324.9
5°	321.9	321.5	321.5	321.1	321.1
7.5°	319.2	318.8	318.4	318.1	317.3
10°	315.4	315.4	315.0	313.1	312.8
12.5°	309.4	309.0	307.5	304.8	304.1
15°	301.0	301.0	298.0	295.0	293.8
17.5°	291.9	291.6	287.8	284.7	283.2
20°	282.1	281.3	277.6	272.6	270.0
22.5°	271.1	271.1	266.6	260.1	257.5
25°	260.9	259.4	255.2	246.1	239.3
27.5°	249.2	246.9	242.3	229.5	221.5
30°	236.3	235.1	228.7	212.0	206.0
32.5°	224.2	222.3	215.5	198.0	193.1
35°	211.7	210.2	199.9	184.8	180.2
37.5°	199.2	197.3	184.4	172.3	166.6
40°	186.7	184.4	170.4	159.4	153.4
42.5°	174.9	171.9	158.3	146.5	139.7
45°	162.4	159.0	145.4	133.3	128.0
47.5°	149.9	146.9	134.4	121.9	115.9
50°	136.7	134.0	122.7	110.2	103.8
52.5°	125.7	121.5	110.6	98.1	92.8
55°	112.8	109.4	99.2	87.5	82.9
57.5°	101.1	97.7	88.2	77.2	73.5
60°	90.1	85.2	77.2	67.8	64.7
62.5°	78.0	74.2	67.4	59.4	63.2
65°	67.0	63.2	57.2	58.3	48.5
67.5°	54.9	53.0	47.7	42.4	40.9
70°	44.7	42.4	40.5	34.8	33.3
72.5°	35.6	33.3	30.7	27.6	26.5
75°	26.9	25.0	23.5	22.3	24.6
77.5°	18.6	17.8	16.7	15.5	15.1
80°	12.1	11.7	11.4	11.0	10.6
82.5°	7.2	7.2	7.2	7.2	7.2
85°	3.8	4.2	4.5	4.9	5.3
87.5°	2.3	2.3	2.7	3.0	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)