

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: P558548

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-82-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558548
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-82-86-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 738.0 lumens
Efficiency: N/A
Efficacy: 68.3 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

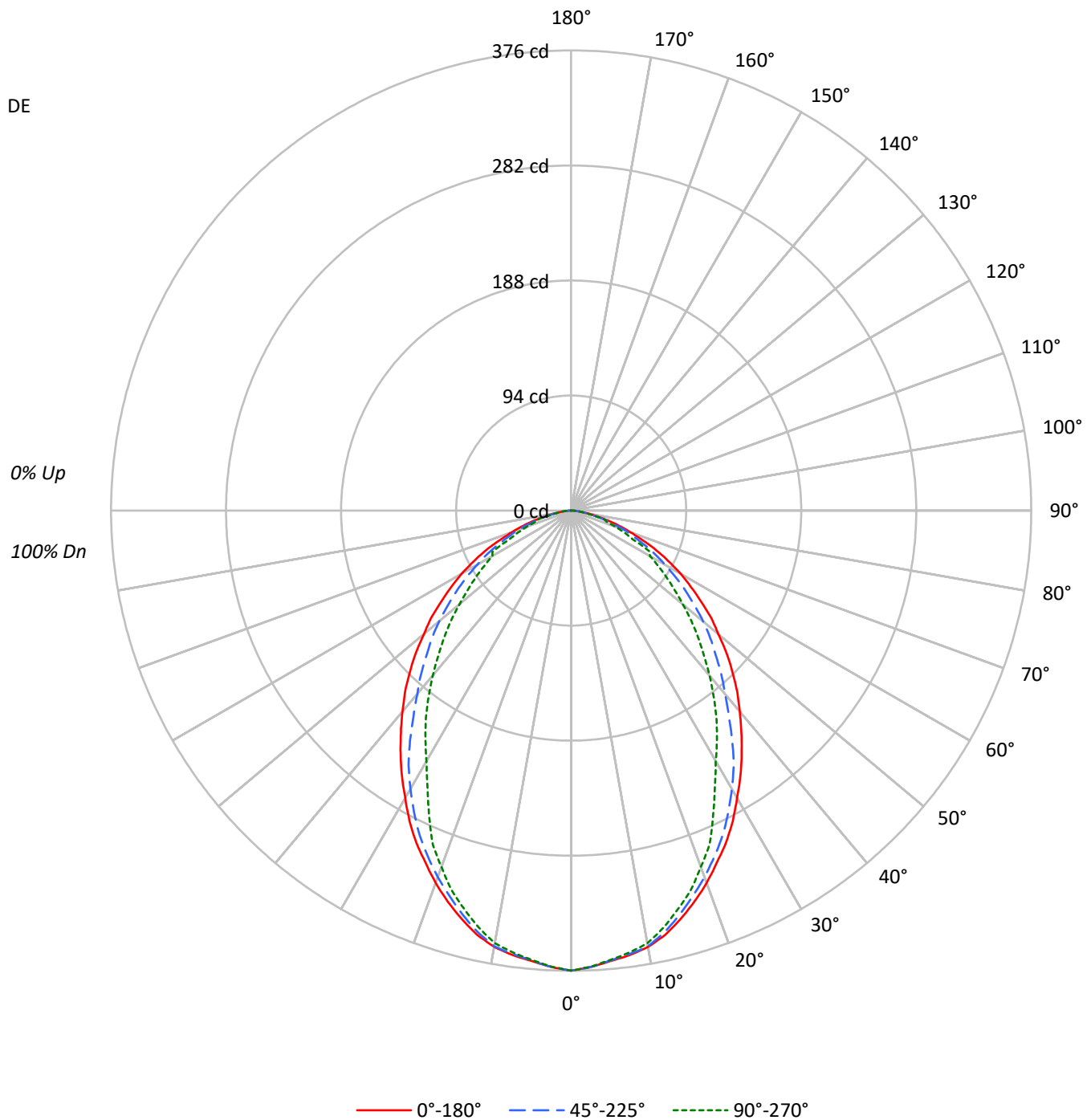
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4046	4046	4046
5°	3991	3987	3982
10°	3957	3952	3924
15°	3850	3811	3758
20°	3709	3649	3550
25°	3556	3479	3263
30°	3371	3263	2938
35°	3192	3016	2719
40°	3011	2748	2473
45°	2837	2541	2236
50°	2627	2358	1994
55°	2430	2137	1787
60°	2226	1910	1600
65°	1959	1671	1416
70°	1614	1463	1202
75°	1285	1119	1173
80°	862	806	756
85°	531	642	753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2837 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.0	4.7
10°-20°	96.0	13.0
20°-30°	133.0	18.0
30°-40°	141.8	19.2
40°-50°	129.3	17.5
50°-60°	101.3	13.7
60°-70°	66.0	8.9
70°-80°	29.2	4.0
80°-90°	6.3	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°	264.0	35.8
0°-40°	405.8	55.0
0°-60°	636.4	86.2
0°-90°	738.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	738.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	376	376	376	376	376	
5°	369	369	369	368	368	35
15°	346	346	342	339	337	97
25°	299	298	293	282	275	137
35°	243	241	230	212	207	152
45°	186	182	167	153	147	144
55°	130	126	114	100	95	116
65°	77	73	66	67	56	76
75°	31	29	27	26	28	33
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	375.9	375.9	375.9	375.9	375.9
2.5°	373.3	373.3	373.3	372.9	372.9
5°	369.4	369.0	369.0	368.5	368.5
7.5°	366.4	365.9	365.5	365.1	364.2
10°	362.0	362.0	361.6	359.4	359.0
12.5°	355.1	354.6	352.9	349.9	349.0
15°	345.5	345.5	342.0	338.6	337.2
17.5°	335.1	334.6	330.3	326.8	325.1
20°	323.8	322.9	318.6	312.9	309.9
22.5°	311.2	311.2	306.0	298.6	295.5
25°	299.4	297.7	292.9	282.5	274.7
27.5°	286.0	283.4	278.1	263.4	254.2
30°	271.2	269.9	262.5	243.4	236.4
32.5°	257.3	255.1	247.3	227.3	221.6
35°	242.9	241.2	229.5	212.1	206.9
37.5°	228.6	226.4	211.6	197.7	191.2
40°	214.3	211.6	195.6	183.0	176.0
42.5°	200.8	197.3	181.7	168.2	160.4
45°	186.4	182.5	166.9	153.0	146.9
47.5°	172.1	168.6	154.3	139.9	133.0
50°	156.9	153.8	140.8	126.5	119.1
52.5°	144.3	139.5	126.9	112.6	106.5
55°	129.5	125.6	113.9	100.4	95.2
57.5°	116.0	112.1	101.3	88.7	84.3
60°	103.4	97.8	88.7	77.8	74.3
62.5°	89.5	85.2	77.4	68.2	72.6
65°	76.9	72.6	65.6	66.9	55.6
67.5°	63.0	60.8	54.8	48.7	46.9
70°	51.3	48.7	46.5	40.0	38.2
72.5°	40.9	38.2	35.2	31.7	30.4
75°	30.9	28.7	26.9	25.6	28.2
77.5°	21.3	20.4	19.1	17.8	17.4
80°	13.9	13.5	13.0	12.6	12.2
82.5°	8.3	8.3	8.3	8.3	8.3
85°	4.3	4.8	5.2	5.6	6.1
87.5°	2.6	2.6	3.0	3.5	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)