

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: P558486

Luminaire Tested: FSR-12-1-LD4-1HI-35-UNV-82-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558486
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-35-UNV-82-87-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 704.0 lumens
Efficiency: N/A
Efficacy: 65.2 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

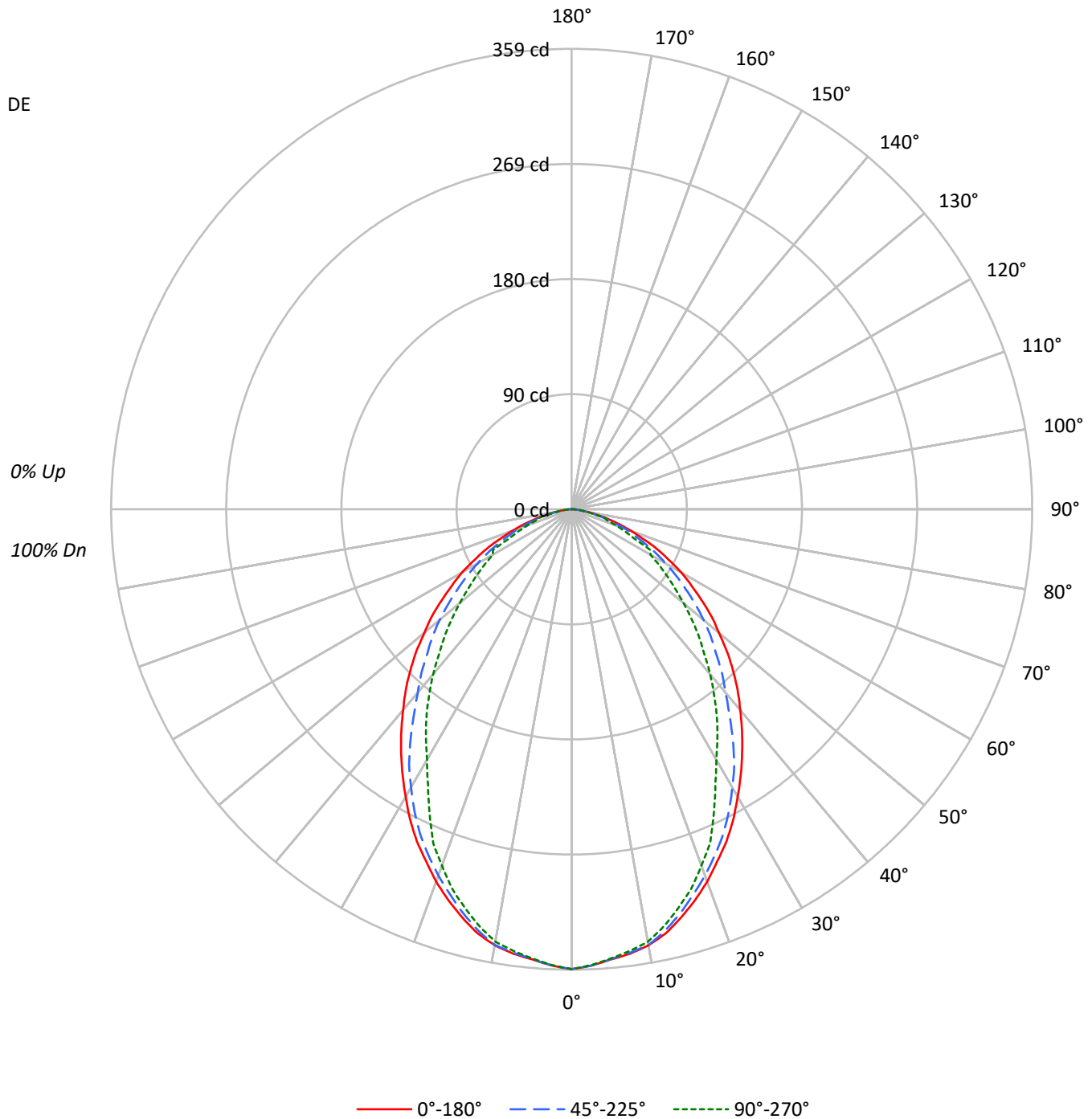
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3860	3860	3860
5°	3808	3803	3799
10°	3774	3770	3742
15°	3673	3636	3585
20°	3538	3481	3386
25°	3392	3318	3112
30°	3215	3112	2803
35°	3045	2876	2593
40°	2872	2622	2359
45°	2708	2423	2133
50°	2507	2249	1902
55°	2318	2038	1704
60°	2125	1821	1526
65°	1869	1594	1352
70°	1539	1397	1149
75°	1223	1069	1119
80°	824	769	719
85°	506	618	716

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2708 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.4	4.7
10°-20°	91.6	13.0
20°-30°	126.8	18.0
30°-40°	135.2	19.2
40°-50°	123.4	17.5
50°-60°	96.7	13.7
60°-70°	63.0	8.9
70°-80°	27.9	4.0
80°-90°	6.0	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°	251.8	35.8
0°-40°	387.1	55.0
0°-60°	607.1	86.2
0°-90°	704.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	704.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	359	359	359	359	359	
5°	352	352	352	352	352	33
15°	330	330	326	323	322	93
25°	286	284	279	270	262	131
35°	232	230	219	202	197	145
45°	178	174	159	146	140	137
55°	124	120	109	96	91	111
65°	73	69	63	64	53	72
75°	29	27	26	24	27	32
85°	4	5	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	358.6	358.6	358.6	358.6	358.6
2.5°	356.1	356.1	356.1	355.7	355.7
5°	352.4	352.0	352.0	351.6	351.6
7.5°	349.5	349.1	348.7	348.2	347.4
10°	345.3	345.3	344.9	342.9	342.4
12.5°	338.7	338.3	336.6	333.7	332.9
15°	329.6	329.6	326.3	323.0	321.7
17.5°	319.6	319.2	315.1	311.8	310.1
20°	308.9	308.0	303.9	298.5	295.6
22.5°	296.8	296.8	291.9	284.8	281.9
25°	285.6	284.0	279.4	269.5	262.0
27.5°	272.8	270.3	265.3	251.2	242.5
30°	258.7	257.5	250.4	232.2	225.5
32.5°	245.4	243.4	235.9	216.8	211.4
35°	231.7	230.1	218.9	202.3	197.3
37.5°	218.1	216.0	201.9	188.6	182.4
40°	204.4	201.9	186.6	174.5	167.9
42.5°	191.5	188.2	173.3	160.4	153.0
45°	177.9	174.1	159.2	145.9	140.1
47.5°	164.2	160.9	147.2	133.5	126.9
50°	149.7	146.8	134.3	120.6	113.6
52.5°	137.6	133.1	121.1	107.4	101.6
55°	123.5	119.8	108.6	95.8	90.8
57.5°	110.7	107.0	96.6	84.6	80.4
60°	98.7	93.3	84.6	74.2	70.9
62.5°	85.4	81.3	73.8	65.1	69.2
65°	73.4	69.2	62.6	63.8	53.1
67.5°	60.1	58.0	52.2	46.4	44.8
70°	48.9	46.4	44.4	38.1	36.5
72.5°	39.0	36.5	33.6	30.3	29.0
75°	29.4	27.4	25.7	24.5	26.9
77.5°	20.3	19.5	18.2	17.0	16.6
80°	13.3	12.9	12.4	12.0	11.6
82.5°	7.9	7.9	7.9	7.9	7.9
85°	4.1	4.6	5.0	5.4	5.8
87.5°	2.5	2.5	2.9	3.3	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)