

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: P558553

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558553
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
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 765.0 lumens
Efficiency: N/A
Efficacy: 70.8 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

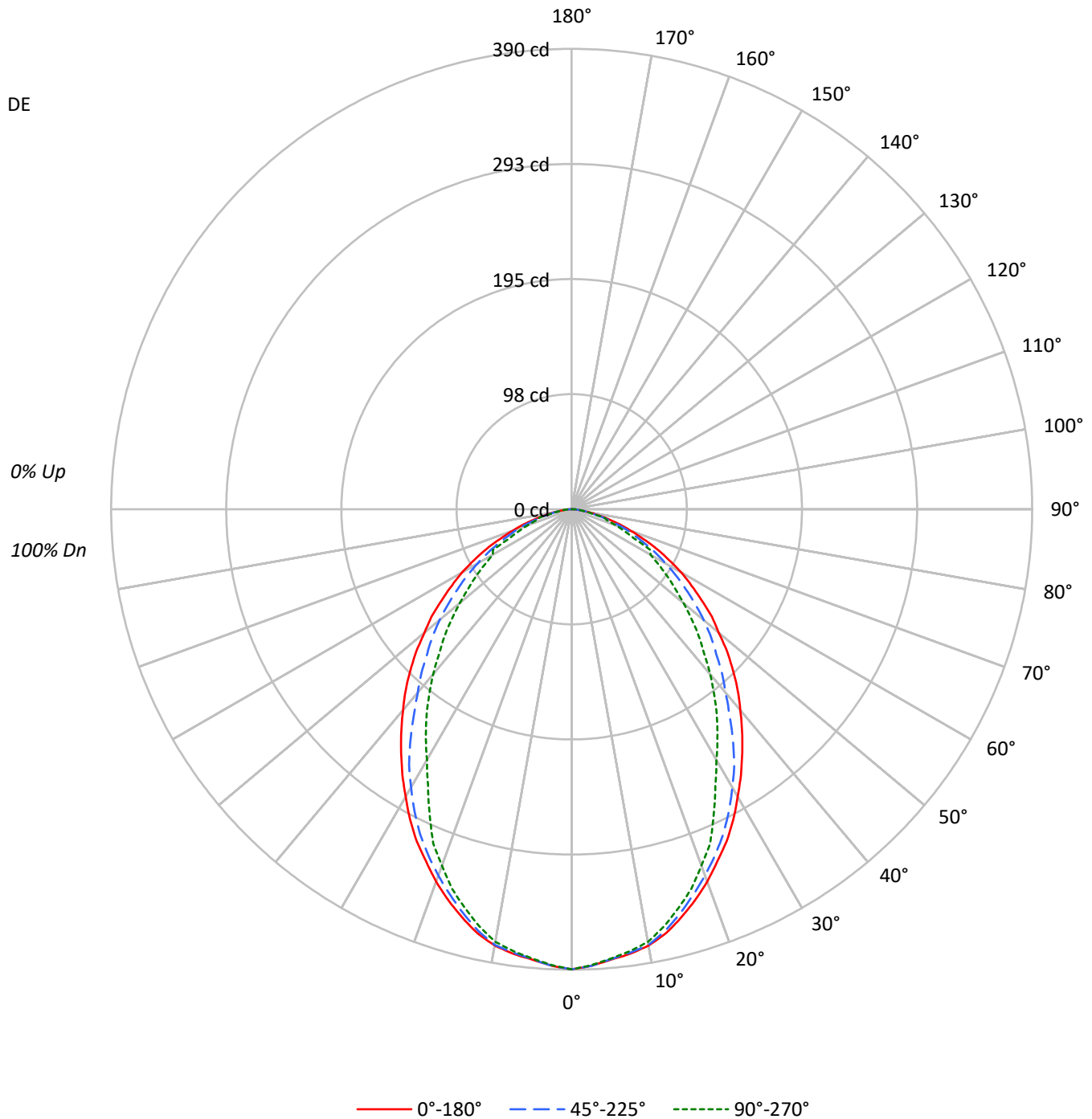
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
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	47	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°	4195	4195	4195
5°	4137	4133	4128
10°	4102	4097	4067
15°	3991	3950	3896
20°	3844	3782	3679
25°	3687	3606	3381
30°	3494	3382	3046
35°	3309	3126	2817
40°	3121	2848	2564
45°	2943	2633	2318
50°	2723	2445	2066
55°	2518	2214	1852
60°	2308	1978	1658
65°	2030	1732	1470
70°	1674	1517	1246
75°	1331	1160	1219
80°	893	837	781
85°	556	667	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2943 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.3	4.7
10°-20°	99.6	13.0
20°-30°	137.8	18.0
30°-40°	147.0	19.2
40°-50°	134.1	17.5
50°-60°	105.0	13.7
60°-70°	68.5	8.9
70°-80°	30.3	4.0
80°-90°	6.5	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°	273.6	35.8
0°-40°	420.6	55.0
0°-60°	659.7	86.2
0°-90°	765.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	765.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	390	390	390	390	390	
5°	383	382	382	382	382	36
15°	358	358	354	351	350	101
25°	310	309	304	293	285	143
35°	252	250	238	220	214	157
45°	193	189	173	159	152	149
55°	134	130	118	104	99	120
65°	80	75	68	69	58	79
75°	32	30	28	27	29	34
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°	389.7	389.7	389.7	389.7	389.7
2.5°	387.0	387.0	387.0	386.5	386.5
5°	382.9	382.5	382.5	382.0	382.0
7.5°	379.8	379.3	378.9	378.4	377.5
10°	375.3	375.3	374.8	372.6	372.1
12.5°	368.1	367.6	365.8	362.7	361.7
15°	358.1	358.1	354.5	350.9	349.6
17.5°	347.3	346.9	342.4	338.8	337.0
20°	335.6	334.7	330.2	324.4	321.2
22.5°	322.6	322.6	317.2	309.5	306.3
25°	310.4	308.6	303.6	292.8	284.7
27.5°	296.4	293.7	288.3	273.0	263.5
30°	281.1	279.8	272.1	252.3	245.1
32.5°	266.7	264.4	256.3	235.6	229.8
35°	251.8	250.0	237.9	219.8	214.4
37.5°	237.0	234.7	219.4	205.0	198.2
40°	222.1	219.4	202.7	189.7	182.5
42.5°	208.1	204.5	188.3	174.3	166.2
45°	193.3	189.2	173.0	158.6	152.3
47.5°	178.4	174.8	159.9	145.1	137.9
50°	162.6	159.5	146.0	131.1	123.4
52.5°	149.6	144.6	131.5	116.7	110.4
55°	134.2	130.2	118.0	104.1	98.7
57.5°	120.3	116.2	105.0	91.9	87.4
60°	107.2	101.4	91.9	80.6	77.0
62.5°	92.8	88.3	80.2	70.7	75.2
65°	79.7	75.2	68.0	69.4	57.7
67.5°	65.3	63.1	56.8	50.5	48.7
70°	53.2	50.5	48.2	41.4	39.6
72.5°	42.3	39.6	36.5	32.9	31.5
75°	32.0	29.7	27.9	26.6	29.3
77.5°	22.1	21.2	19.8	18.5	18.0
80°	14.4	14.0	13.5	13.1	12.6
82.5°	8.6	8.6	8.6	8.6	8.6
85°	4.5	5.0	5.4	5.9	6.3
87.5°	2.7	2.7	3.2	3.6	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)