

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: P558679

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558679
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-LD4-1LO-35-UNV-82-87-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 512.0 lumens
Efficiency: N/A
Efficacy: 88.3 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

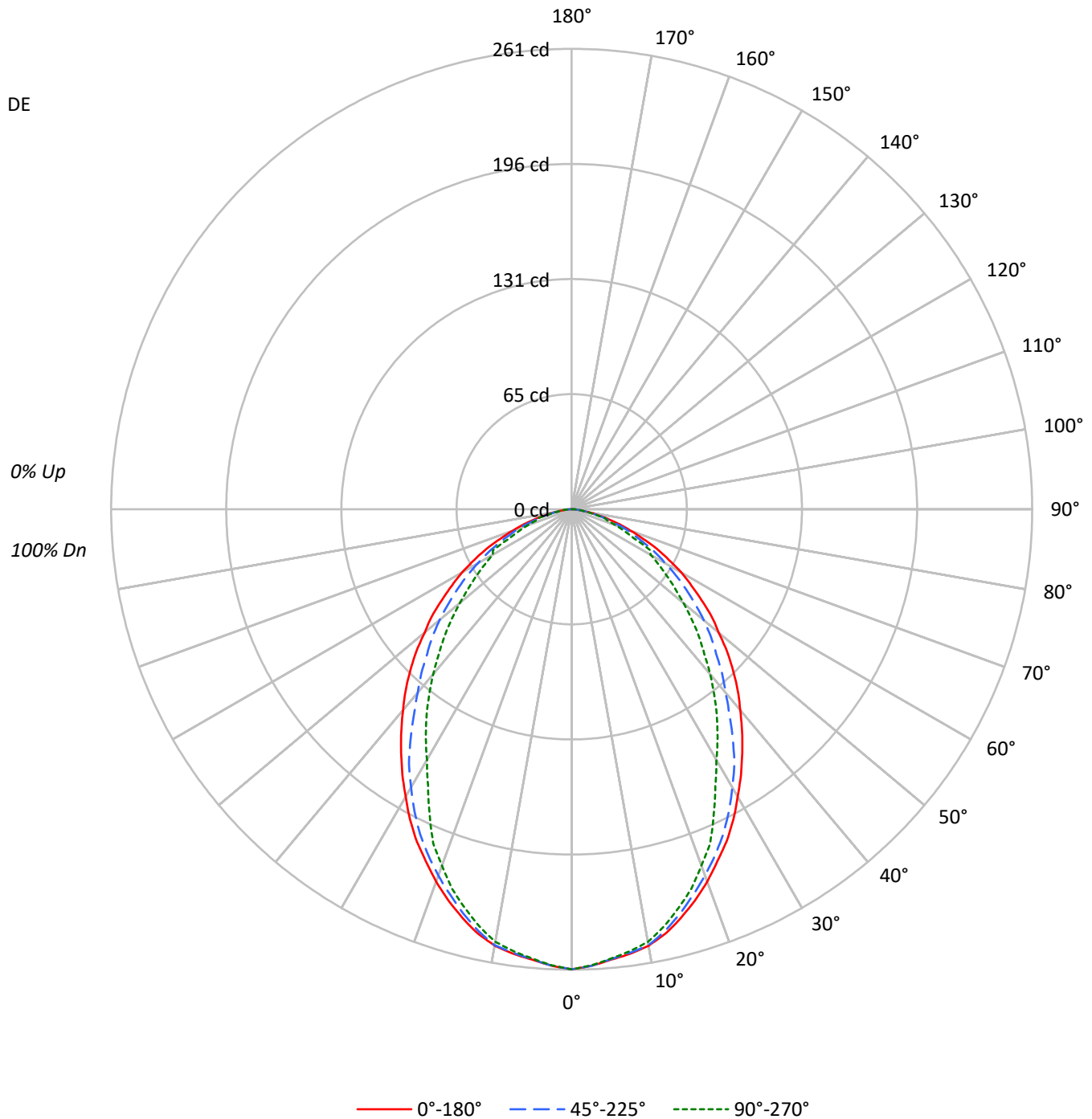
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	39	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°	2807	2807	2807
5°	2769	2766	2763
10°	2746	2742	2722
15°	2671	2644	2608
20°	2573	2531	2463
25°	2467	2413	2264
30°	2338	2263	2038
35°	2214	2092	1886
40°	2088	1907	1716
45°	1968	1763	1551
50°	1822	1636	1383
55°	1685	1483	1239
60°	1546	1324	1111
65°	1360	1159	983
70°	1120	1017	834
75°	890	778	815
80°	595	558	521
85°	371	445	519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1968 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.3	4.7
10°-20°	66.6	13.0
20°-30°	92.2	18.0
30°-40°	98.4	19.2
40°-50°	89.7	17.5
50°-60°	70.3	13.7
60°-70°	45.8	8.9
70°-80°	20.3	4.0
80°-90°	4.3	0.8
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°	183.1	35.8
0°-40°	281.5	55.0
0°-60°	441.5	86.2
0°-90°	512.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	512.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	261	261	261	261	261	
5°	256	256	256	256	256	24
15°	240	240	237	235	234	67
25°	208	206	203	196	191	95
35°	168	167	159	147	144	105
45°	129	127	116	106	102	100
55°	90	87	79	70	66	81
65°	53	50	46	46	39	53
75°	21	20	19	18	20	23
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	260.8	260.8	260.8	260.8	260.8
2.5°	259.0	259.0	259.0	258.7	258.7
5°	256.3	256.0	256.0	255.7	255.7
7.5°	254.2	253.9	253.6	253.3	252.7
10°	251.2	251.2	250.9	249.3	249.0
12.5°	246.3	246.0	244.8	242.7	242.1
15°	239.7	239.7	237.3	234.9	234.0
17.5°	232.5	232.2	229.1	226.7	225.5
20°	224.6	224.0	221.0	217.1	215.0
22.5°	215.9	215.9	212.3	207.1	205.0
25°	207.7	206.5	203.2	196.0	190.6
27.5°	198.4	196.6	193.0	182.7	176.4
30°	188.1	187.2	182.1	168.8	164.0
32.5°	178.5	177.0	171.6	157.7	153.8
35°	168.5	167.3	159.2	147.1	143.5
37.5°	158.6	157.1	146.8	137.2	132.7
40°	148.6	146.8	135.7	126.9	122.1
42.5°	139.3	136.9	126.0	116.7	111.3
45°	129.3	126.6	115.8	106.1	101.9
47.5°	119.4	117.0	107.0	97.1	92.3
50°	108.8	106.7	97.7	87.7	82.6
52.5°	100.1	96.8	88.0	78.1	73.9
55°	89.8	87.1	79.0	69.6	66.0
57.5°	80.5	77.8	70.3	61.5	58.5
60°	71.8	67.8	61.5	54.0	51.6
62.5°	62.1	59.1	53.7	47.3	50.4
65°	53.4	50.4	45.5	46.4	38.6
67.5°	43.7	42.2	38.0	33.8	32.6
70°	35.6	33.8	32.3	27.7	26.5
72.5°	28.3	26.5	24.4	22.0	21.1
75°	21.4	19.9	18.7	17.8	19.6
77.5°	14.8	14.2	13.3	12.4	12.1
80°	9.6	9.3	9.0	8.7	8.4
82.5°	5.7	5.7	5.7	5.7	5.7
85°	3.0	3.3	3.6	3.9	4.2
87.5°	1.8	1.8	2.1	2.4	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)