

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: P558672

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-82-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558672
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-82-84-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 457.0 lumens
Efficiency: N/A
Efficacy: 78.8 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

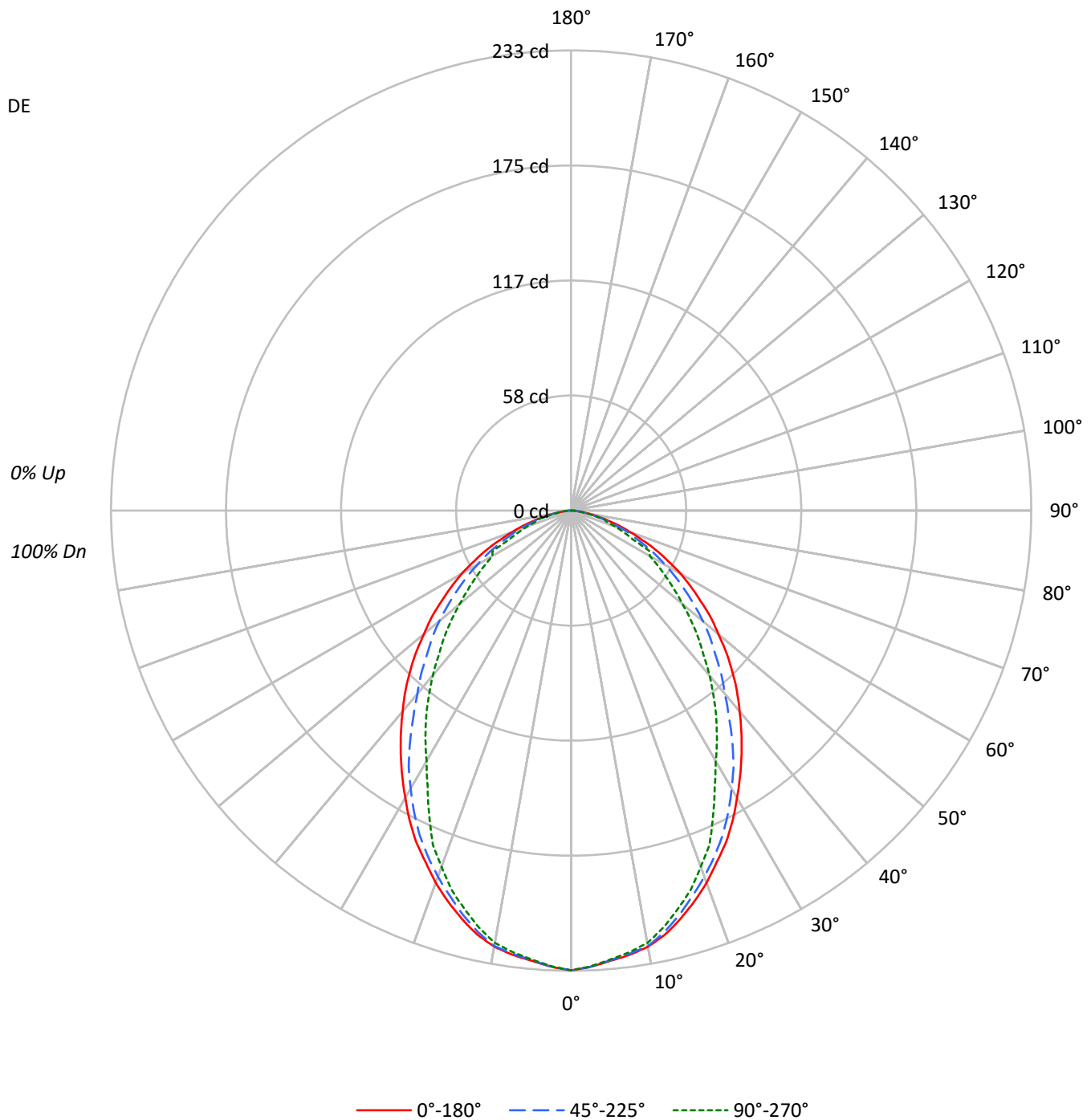
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2506	2506	2506
5°	2472	2469	2466
10°	2450	2447	2430
15°	2385	2360	2327
20°	2297	2260	2198
25°	2202	2154	2020
30°	2087	2020	1820
35°	1976	1867	1683
40°	1865	1702	1532
45°	1758	1572	1385
50°	1628	1460	1234
55°	1505	1323	1105
60°	1380	1182	990
65°	1212	1034	876
70°	1001	906	746
75°	794	695	728
80°	533	502	465
85°	333	395	469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1758 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.7	4.7
10°-20°	59.5	13.0
20°-30°	82.3	18.0
30°-40°	87.8	19.2
40°-50°	80.1	17.5
50°-60°	62.7	13.7
60°-70°	40.9	8.9
70°-80°	18.1	4.0
80°-90°	3.9	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°	163.5	35.8
0°-40°	251.3	55.0
0°-60°	394.1	86.2
0°-90°	457.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	457.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	233	233	233	233	233	
5°	229	228	228	228	228	22
15°	214	214	212	210	209	60
25°	185	184	181	175	170	85
35°	150	149	142	131	128	94
45°	116	113	103	95	91	89
55°	80	78	70	62	59	72
65°	48	45	41	41	34	47
75°	19	18	17	16	18	20
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	232.8	232.8	232.8	232.8	232.8
2.5°	231.2	231.2	231.2	230.9	230.9
5°	228.8	228.5	228.5	228.2	228.2
7.5°	226.9	226.6	226.3	226.1	225.5
10°	224.2	224.2	223.9	222.6	222.3
12.5°	219.9	219.6	218.5	216.6	216.1
15°	214.0	214.0	211.8	209.6	208.8
17.5°	207.5	207.2	204.5	202.4	201.3
20°	200.5	200.0	197.3	193.8	191.9
22.5°	192.7	192.7	189.5	184.9	183.0
25°	185.4	184.3	181.4	174.9	170.1
27.5°	177.1	175.5	172.2	163.1	157.4
30°	167.9	167.1	162.5	150.7	146.4
32.5°	159.3	158.0	153.1	140.8	137.3
35°	150.4	149.4	142.1	131.3	128.1
37.5°	141.6	140.2	131.1	122.5	118.4
40°	132.7	131.1	121.1	113.3	109.0
42.5°	124.3	122.2	112.5	104.1	99.3
45°	115.5	113.0	103.3	94.7	91.0
47.5°	106.6	104.4	95.5	86.7	82.4
50°	97.2	95.3	87.2	78.3	73.7
52.5°	89.3	86.4	78.6	69.7	65.9
55°	80.2	77.8	70.5	62.2	58.9
57.5°	71.9	69.4	62.7	54.9	52.2
60°	64.1	60.6	54.9	48.2	46.0
62.5°	55.4	52.7	47.9	42.3	44.9
65°	47.6	44.9	40.6	41.4	34.4
67.5°	39.0	37.7	33.9	30.1	29.1
70°	31.8	30.1	28.8	24.8	23.7
72.5°	25.3	23.7	21.8	19.6	18.8
75°	19.1	17.8	16.7	15.9	17.5
77.5°	13.2	12.6	11.8	11.0	10.8
80°	8.6	8.3	8.1	7.8	7.5
82.5°	5.1	5.1	5.1	5.1	5.1
85°	2.7	3.0	3.2	3.5	3.8
87.5°	1.6	1.6	1.9	2.2	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)