

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: P558662

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-81-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558662
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-81-87-EDD-90
Description: 1X1 FSR TROFFER WITH .156 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: 438.0 lumens
Efficiency: N/A
Efficacy: 75.5 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

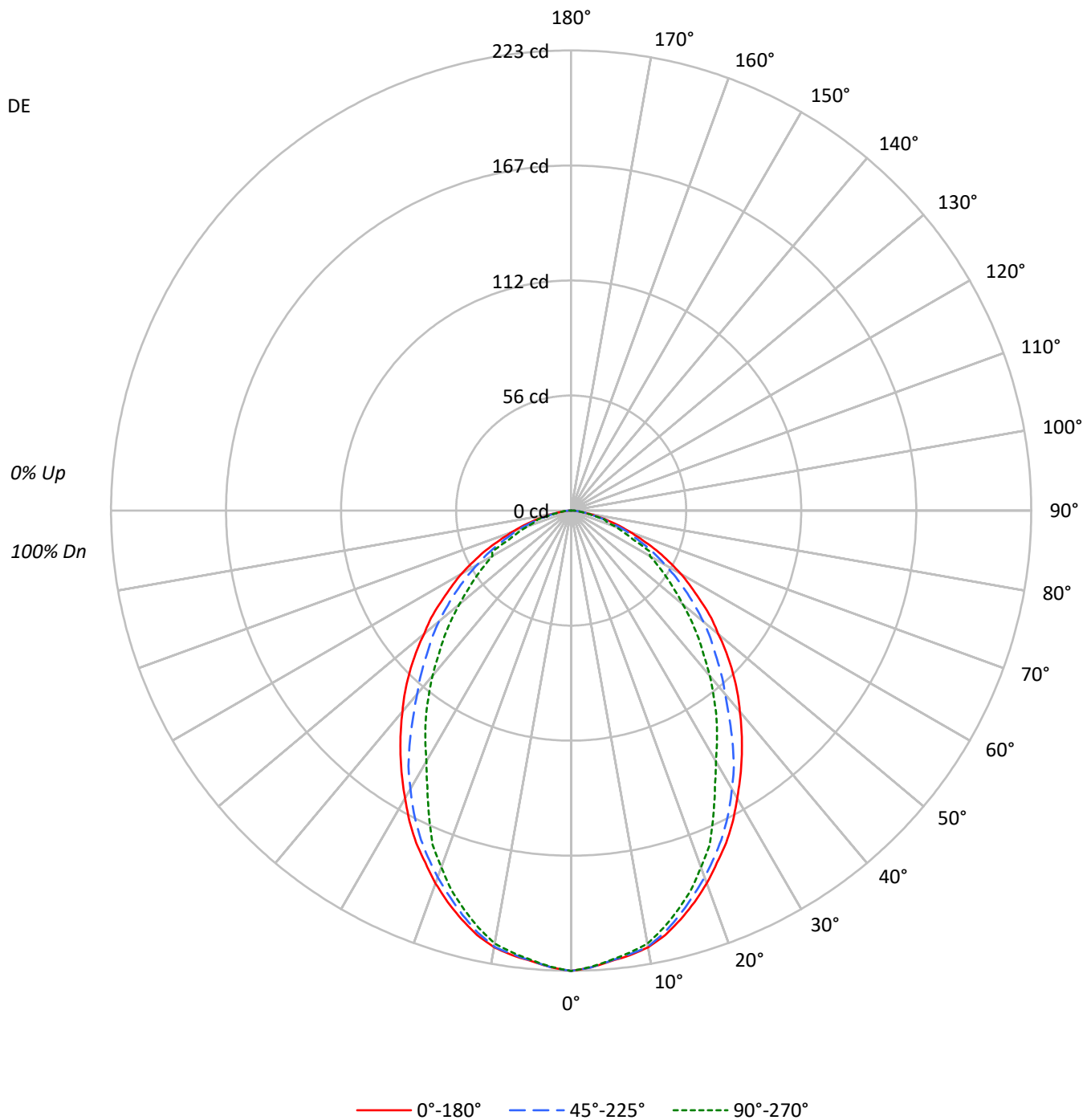
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2401	2401	2401
5°	2368	2366	2363
10°	2349	2346	2329
15°	2286	2262	2231
20°	2202	2166	2107
25°	2110	2064	1936
30°	2000	1936	1744
35°	1895	1790	1614
40°	1787	1631	1468
45°	1685	1507	1327
50°	1559	1400	1184
55°	1443	1269	1060
60°	1322	1132	949
65°	1164	991	840
70°	957	869	714
75°	761	665	699
80°	514	477	446
85°	321	383	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1685 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.8	4.7
10°-20°	57.0	13.0
20°-30°	78.9	18.0
30°-40°	84.1	19.2
40°-50°	76.8	17.5
50°-60°	60.1	13.7
60°-70°	39.2	8.9
70°-80°	17.4	4.0
80°-90°	3.7	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°	156.7	35.8
0°-40°	240.8	55.0
0°-60°	377.7	86.2
0°-90°	438.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	438.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	223	223	223	223	223	
5°	219	219	219	219	219	21
15°	205	205	203	201	200	58
25°	178	177	174	168	163	82
35°	144	143	136	126	123	90
45°	111	108	99	91	87	85
55°	77	74	68	60	56	69
65°	46	43	39	40	33	45
75°	18	17	16	15	17	20
85°	3	3	3	3	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	223.1	223.1	223.1	223.1	223.1
2.5°	221.6	221.6	221.6	221.3	221.3
5°	219.2	219.0	219.0	218.7	218.7
7.5°	217.4	217.2	216.9	216.7	216.1
10°	214.9	214.9	214.6	213.3	213.1
12.5°	210.7	210.5	209.4	207.6	207.1
15°	205.1	205.1	203.0	200.9	200.2
17.5°	198.9	198.6	196.0	194.0	192.9
20°	192.2	191.6	189.1	185.7	183.9
22.5°	184.7	184.7	181.6	177.2	175.4
25°	177.7	176.7	173.8	167.7	163.0
27.5°	169.7	168.2	165.1	156.3	150.9
30°	160.9	160.2	155.8	144.4	140.3
32.5°	152.7	151.4	146.8	134.9	131.5
35°	144.2	143.2	136.2	125.9	122.8
37.5°	135.7	134.4	125.6	117.4	113.5
40°	127.2	125.6	116.1	108.6	104.5
42.5°	119.2	117.1	107.8	99.8	95.2
45°	110.7	108.3	99.0	90.8	87.2
47.5°	102.1	100.1	91.6	83.1	78.9
50°	93.1	91.3	83.6	75.1	70.7
52.5°	85.6	82.8	75.3	66.8	63.2
55°	76.9	74.5	67.6	59.6	56.5
57.5°	68.9	66.5	60.1	52.6	50.0
60°	61.4	58.0	52.6	46.2	44.1
62.5°	53.1	50.6	45.9	40.5	43.1
65°	45.7	43.1	38.9	39.7	33.0
67.5°	37.4	36.1	32.5	28.9	27.9
70°	30.4	28.9	27.6	23.7	22.7
72.5°	24.2	22.7	20.9	18.8	18.1
75°	18.3	17.0	16.0	15.2	16.8
77.5°	12.6	12.1	11.3	10.6	10.3
80°	8.3	8.0	7.7	7.5	7.2
82.5°	4.9	4.9	4.9	4.9	4.9
85°	2.6	2.8	3.1	3.4	3.6
87.5°	1.5	1.5	1.8	2.1	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)