

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: P559832

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559832
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-12-2-LD4-1LO-35-UNV-82-88-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 748.0 lumens
Efficiency: N/A
Efficacy: 63.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

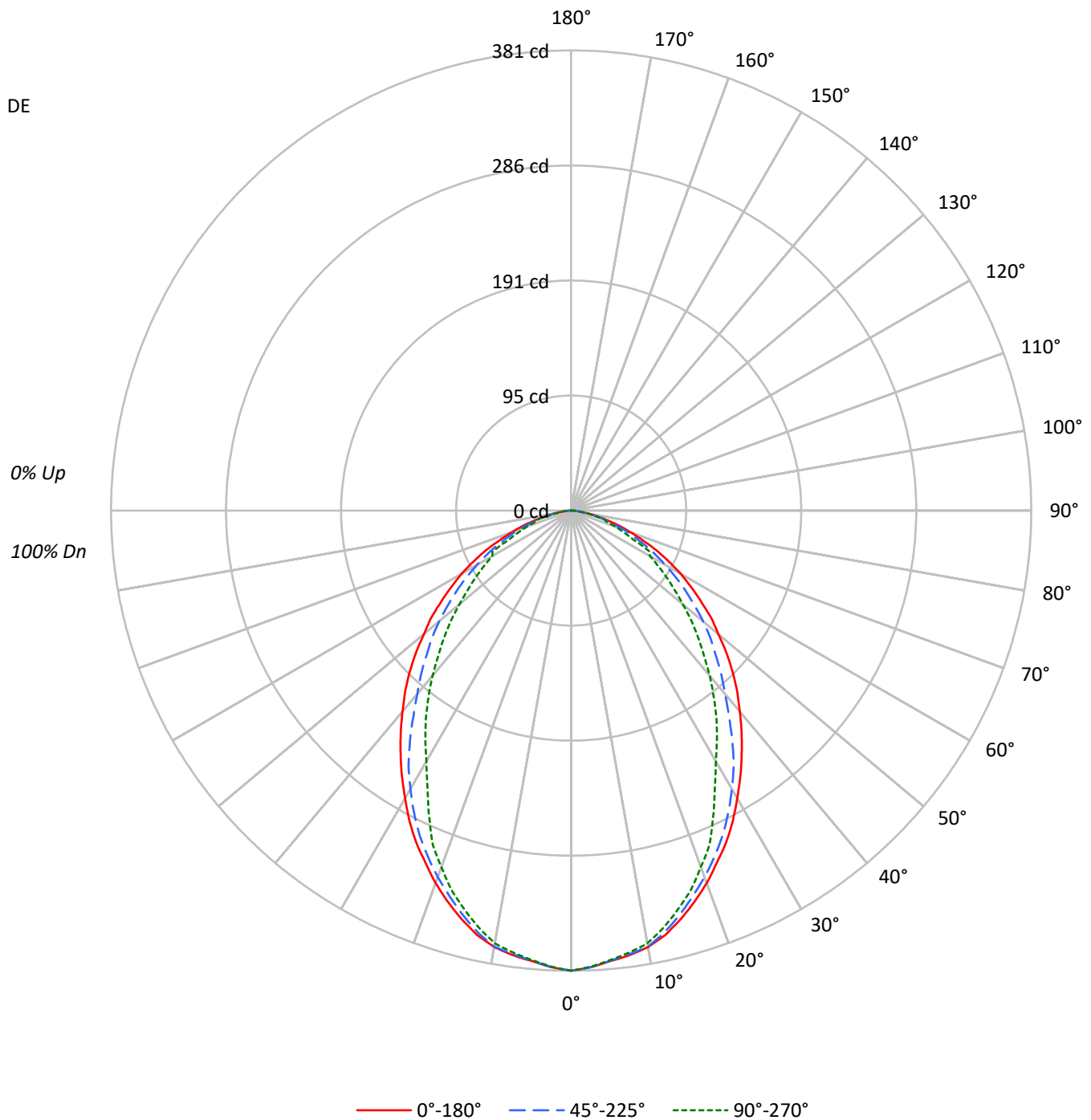
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2051	2051	2051
5°	2023	2021	2018
10°	2005	2003	1988
15°	1951	1932	1904
20°	1880	1849	1799
25°	1802	1763	1653
30°	1708	1654	1489
35°	1618	1528	1378
40°	1526	1392	1253
45°	1439	1287	1133
50°	1331	1195	1011
55°	1232	1083	905
60°	1128	968	811
65°	993	847	718
70°	818	741	611
75°	651	568	595
80°	437	409	381
85°	272	327	383

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1439 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.5	4.7
10°-20°	97.3	13.0
20°-30°	134.8	18.0
30°-40°	143.7	19.2
40°-50°	131.1	17.5
50°-60°	102.7	13.7
60°-70°	66.9	8.9
70°-80°	29.7	4.0
80°-90°	6.4	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°	267.6	35.8
0°-40°	411.3	55.0
0°-60°	645.0	86.2
0°-90°	748.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	748.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	381	381	381	381	381	
5°	374	374	374	374	374	36
15°	350	350	347	343	342	98
25°	304	302	297	286	278	139
35°	246	244	233	215	210	154
45°	189	185	169	155	149	146
55°	131	127	115	102	96	118
65°	78	74	66	68	56	77
75°	31	29	27	26	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°	381.0	381.0	381.0	381.0	381.0
2.5°	378.4	378.4	378.4	377.9	377.9
5°	374.4	374.0	374.0	373.5	373.5
7.5°	371.3	370.9	370.4	370.0	369.1
10°	366.9	366.9	366.5	364.3	363.8
12.5°	359.9	359.4	357.7	354.6	353.7
15°	350.2	350.2	346.7	343.1	341.8
17.5°	339.6	339.2	334.8	331.2	329.5
20°	328.2	327.3	322.9	317.2	314.1
22.5°	315.4	315.4	310.1	302.6	299.5
25°	303.5	301.7	296.9	286.3	278.4
27.5°	289.8	287.2	281.9	266.9	257.7
30°	274.9	273.5	266.1	246.7	239.6
32.5°	260.8	258.6	250.6	230.4	224.6
35°	246.2	244.5	232.6	215.0	209.7
37.5°	231.7	229.5	214.5	200.4	193.8
40°	217.2	214.5	198.2	185.4	178.4
42.5°	203.5	200.0	184.1	170.5	162.5
45°	189.0	185.0	169.1	155.1	148.9
47.5°	174.4	170.9	156.4	141.8	134.8
50°	159.0	155.9	142.7	128.2	120.7
52.5°	146.2	141.4	128.6	114.1	107.9
55°	131.3	127.3	115.4	101.8	96.5
57.5°	117.6	113.6	102.6	89.9	85.5
60°	104.8	99.1	89.9	78.8	75.3
62.5°	90.7	86.3	78.4	69.2	73.6
65°	78.0	73.6	66.5	67.8	56.4
67.5°	63.9	61.7	55.5	49.3	47.6
70°	52.0	49.3	47.1	40.5	38.8
72.5°	41.4	38.8	35.7	32.2	30.8
75°	31.3	29.1	27.3	26.0	28.6
77.5°	21.6	20.7	19.4	18.1	17.6
80°	14.1	13.7	13.2	12.8	12.3
82.5°	8.4	8.4	8.4	8.4	8.4
85°	4.4	4.8	5.3	5.7	6.2
87.5°	2.6	2.6	3.1	3.5	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)