

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: P559880

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559880
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-40-UNV-81-88-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 775.0 lumens
Efficiency: N/A
Efficacy: 66.2 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

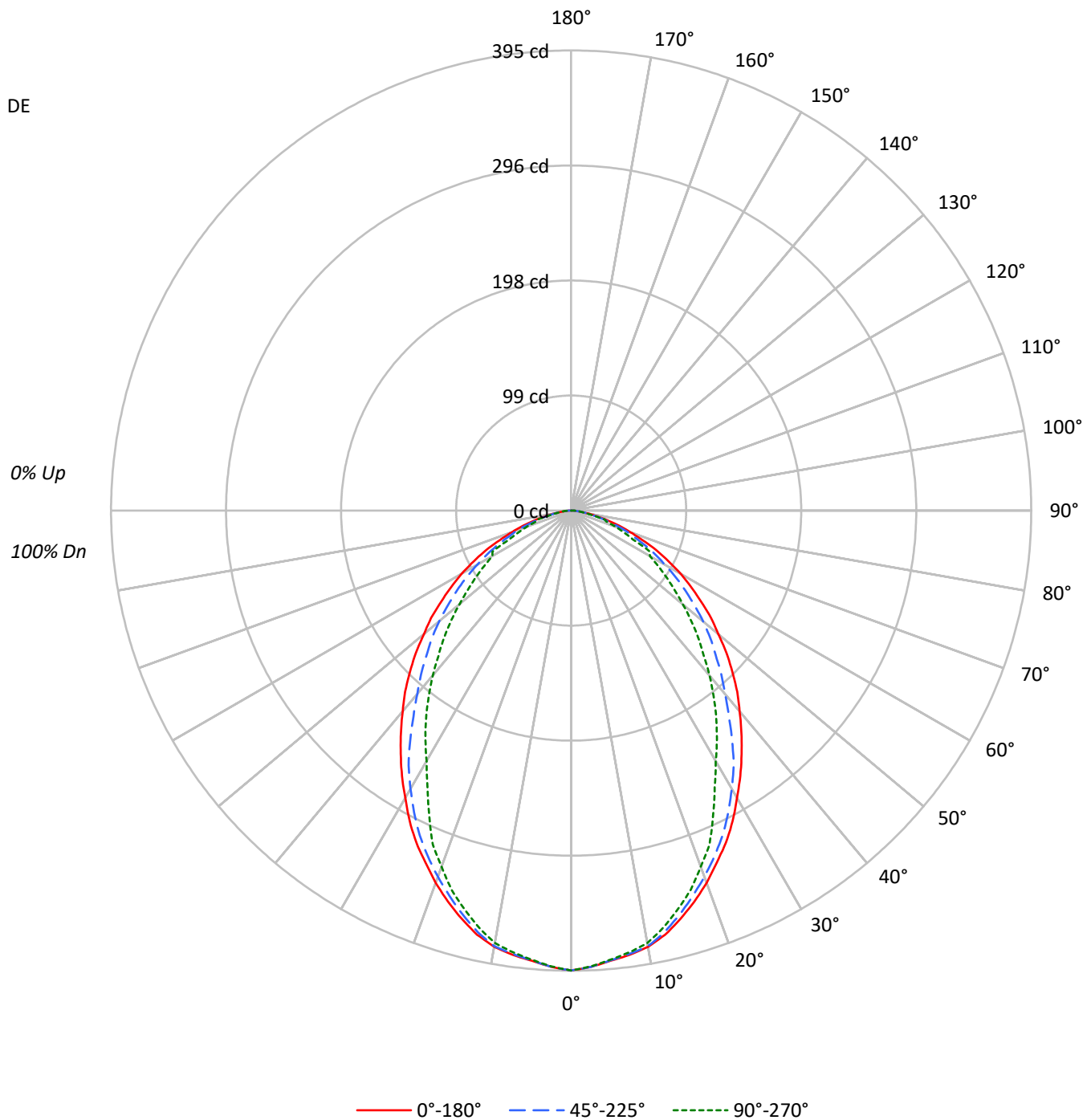
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2125	2125	2125
5°	2096	2093	2091
10°	2078	2075	2060
15°	2021	2001	1974
20°	1947	1916	1864
25°	1868	1827	1713
30°	1770	1713	1543
35°	1676	1583	1427
40°	1581	1443	1298
45°	1490	1334	1174
50°	1380	1238	1047
55°	1276	1122	937
60°	1169	1002	840
65°	1029	877	744
70°	848	768	633
75°	674	588	618
80°	453	425	397
85°	284	340	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1490 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.7	4.7
10°-20°	100.9	13.0
20°-30°	139.6	18.0
30°-40°	148.9	19.2
40°-50°	135.8	17.5
50°-60°	106.4	13.7
60°-70°	69.4	8.9
70°-80°	30.7	4.0
80°-90°	6.6	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°	277.2	35.8
0°-40°	426.1	55.0
0°-60°	668.3	86.2
0°-90°	775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	775.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	395	395	395	395	395	
5°	388	388	388	387	387	37
15°	363	363	359	356	354	102
25°	314	313	308	297	288	144
35°	255	253	241	223	217	160
45°	196	192	175	161	154	151
55°	136	132	120	105	100	122
65°	81	76	69	70	58	80
75°	32	30	28	27	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	394.8	394.8	394.8	394.8	394.8
2.5°	392.0	392.0	392.0	391.6	391.6
5°	387.9	387.5	387.5	387.0	387.0
7.5°	384.7	384.3	383.8	383.4	382.5
10°	380.2	380.2	379.7	377.4	377.0
12.5°	372.9	372.4	370.6	367.4	366.5
15°	362.8	362.8	359.2	355.5	354.2
17.5°	351.9	351.4	346.9	343.2	341.4
20°	340.0	339.1	334.5	328.6	325.4
22.5°	326.8	326.8	321.3	313.5	310.3
25°	314.5	312.6	307.6	296.7	288.4
27.5°	300.3	297.6	292.1	276.6	267.0
30°	284.8	283.4	275.7	255.6	248.3
32.5°	270.2	267.9	259.7	238.7	232.8
35°	255.1	253.3	241.0	222.7	217.2
37.5°	240.1	237.8	222.3	207.7	200.8
40°	225.0	222.3	205.4	192.1	184.8
42.5°	210.9	207.2	190.8	176.6	168.4
45°	195.8	191.7	175.3	160.6	154.3
47.5°	180.7	177.1	162.0	147.0	139.7
50°	164.8	161.6	147.9	132.8	125.1
52.5°	151.5	146.5	133.3	118.2	111.8
55°	136.0	131.9	119.6	105.4	99.9
57.5°	121.9	117.7	106.3	93.1	88.5
60°	108.6	102.7	93.1	81.7	78.0
62.5°	94.0	89.5	81.2	71.7	76.2
65°	80.8	76.2	68.9	70.3	58.4
67.5°	66.2	63.9	57.5	51.1	49.3
70°	53.9	51.1	48.8	42.0	40.2
72.5°	42.9	40.2	37.0	33.3	31.9
75°	32.4	30.1	28.3	26.9	29.7
77.5°	22.4	21.5	20.1	18.7	18.3
80°	14.6	14.1	13.7	13.2	12.8
82.5°	8.7	8.7	8.7	8.7	8.7
85°	4.6	5.0	5.5	5.9	6.4
87.5°	2.7	2.7	3.2	3.7	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)