

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: P559505

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559505
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-LD4-2STD-40-UNV-82-84-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1478.0 lumens
Efficiency: N/A
Efficacy: 89.0 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

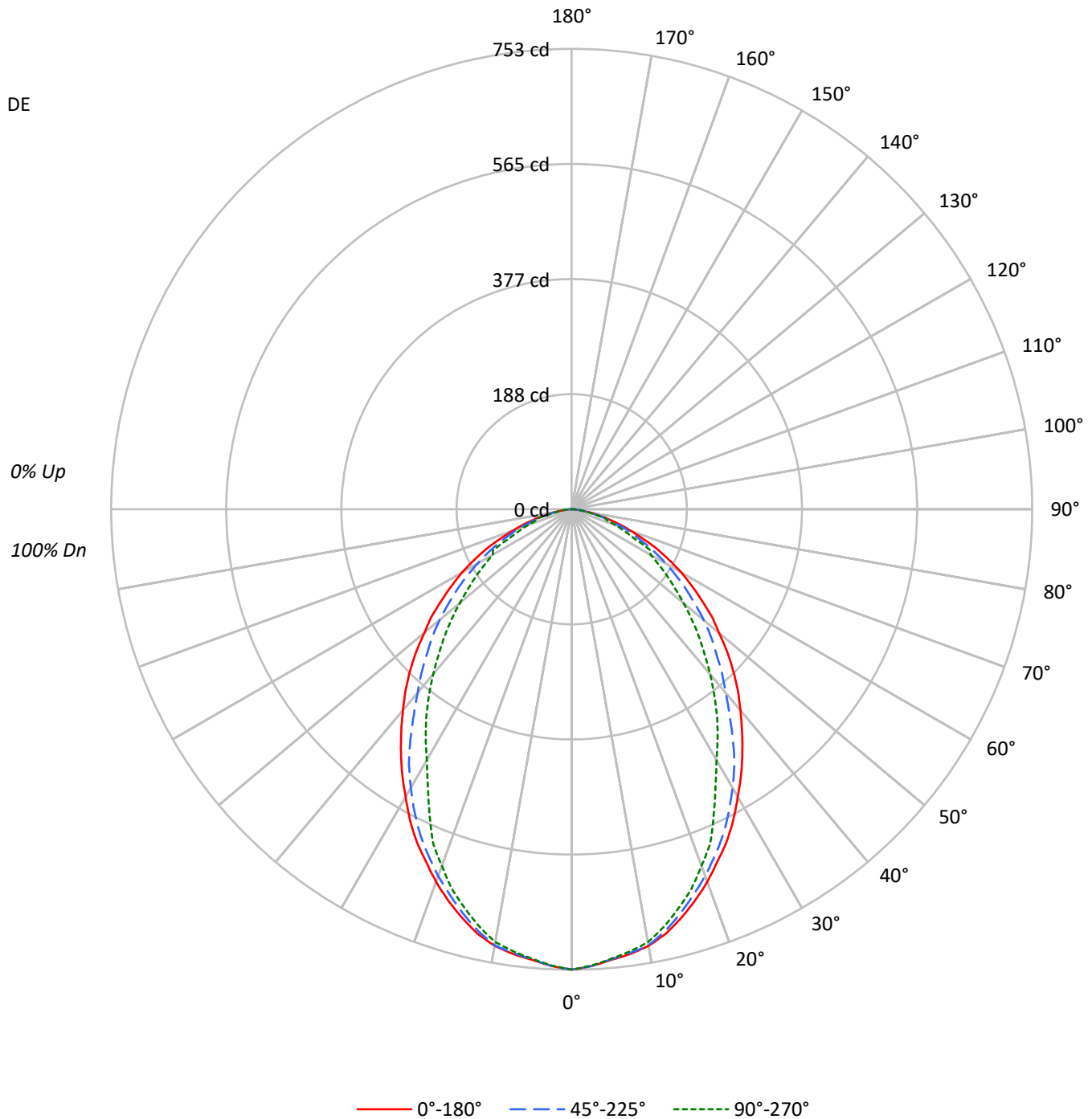
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8104	8104	8104
5°	7994	7984	7975
10°	7924	7915	7858
15°	7710	7633	7526
20°	7427	7308	7109
25°	7122	6967	6533
30°	6750	6534	5885
35°	6393	6039	5444
40°	6029	5504	4953
45°	5684	5087	4478
50°	5261	4722	3994
55°	4868	4279	3577
60°	4458	3823	3203
65°	3925	3347	2837
70°	3232	2930	2411
75°	2570	2246	2354
80°	1729	1618	1512
85°	1074	1284	1507

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5684 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.1	4.7
10°-20°	192.3	13.0
20°-30°	266.3	18.0
30°-40°	283.9	19.2
40°-50°	259.0	17.5
50°-60°	202.9	13.7
60°-70°	132.3	8.9
70°-80°	58.6	4.0
80°-90°	12.6	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°	528.7	35.8
0°-40°	812.6	55.0
0°-60°	1274.6	86.2
0°-90°	1478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1478.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	753	753	753	753	753	
5°	740	739	739	738	738	70
15°	692	692	685	678	675	195
25°	600	596	587	566	550	275
35°	486	483	460	425	414	304
45°	373	366	334	306	294	288
55°	259	252	228	201	191	233
65°	154	145	131	134	111	152
75°	62	57	54	51	57	66
85°	9	10	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	752.9	752.9	752.9	752.9	752.9
2.5°	747.7	747.7	747.7	746.8	746.8
5°	739.8	738.9	738.9	738.1	738.1
7.5°	733.7	732.9	732.0	731.1	729.4
10°	725.0	725.0	724.2	719.8	718.9
12.5°	711.1	710.2	706.7	700.7	698.9
15°	691.9	691.9	685.0	678.0	675.4
17.5°	671.1	670.2	661.5	654.5	651.0
20°	648.4	646.7	638.0	626.7	620.6
22.5°	623.2	623.2	612.7	597.9	591.9
25°	599.7	596.2	586.6	565.7	550.1
27.5°	572.7	567.5	557.0	527.4	509.2
30°	543.1	540.5	525.7	487.4	473.5
32.5°	515.3	510.9	495.2	455.2	443.9
35°	486.5	483.1	459.6	424.7	414.3
37.5°	457.8	453.5	423.9	396.0	383.0
40°	429.1	423.9	391.7	366.4	352.5
42.5°	402.1	395.1	363.8	336.8	321.2
45°	373.4	365.6	334.2	306.4	294.2
47.5°	344.7	337.7	309.0	280.3	266.3
50°	314.2	308.1	282.0	253.3	238.5
52.5°	289.0	279.4	254.1	225.4	213.2
55°	259.4	251.5	228.0	201.1	190.6
57.5°	232.4	224.6	202.8	177.6	168.9
60°	207.1	195.8	177.6	155.8	148.8
62.5°	179.3	170.6	154.9	136.6	145.4
65°	154.1	145.4	131.4	134.0	111.4
67.5°	126.2	121.9	109.7	97.5	94.0
70°	102.7	97.5	93.1	80.1	76.6
72.5°	81.8	76.6	70.5	63.5	60.9
75°	61.8	57.4	54.0	51.4	56.6
77.5°	42.6	40.9	38.3	35.7	34.8
80°	27.9	27.0	26.1	25.2	24.4
82.5°	16.5	16.5	16.5	16.5	16.5
85°	8.7	9.6	10.4	11.3	12.2
87.5°	5.2	5.2	6.1	7.0	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)