

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: P558929

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558929
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-LD4-1STD-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: 739.0 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

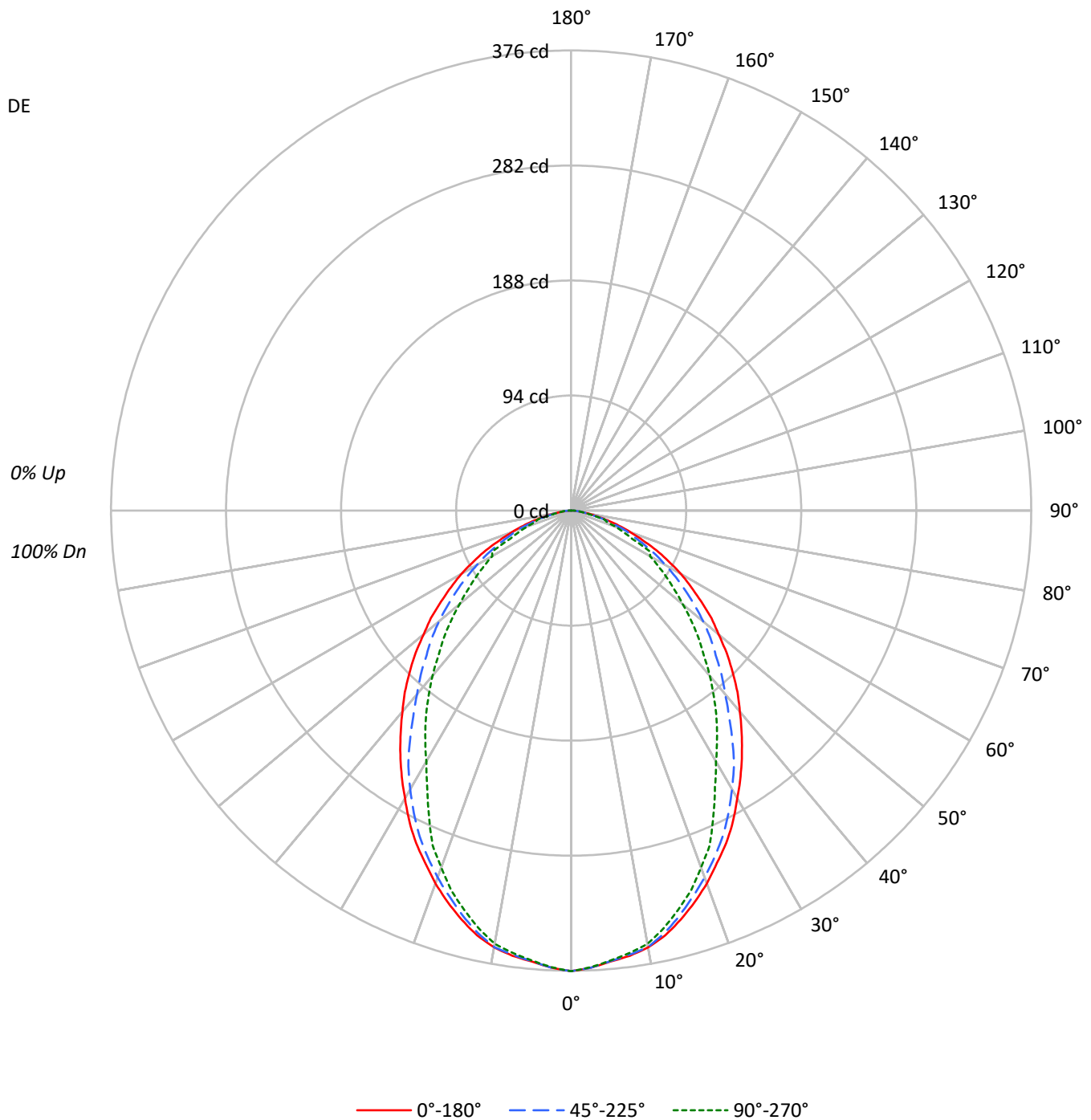
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100													100															
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87													87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75													75															
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65													65															
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56													56															
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50													50															
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44													44															
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40													40															
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36													36															
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33													33															
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30													30															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4052	4052	4052
5°	3997	3992	3987
10°	3962	3958	3929
15°	3856	3817	3763
20°	3714	3654	3554
25°	3561	3483	3266
30°	3376	3268	2942
35°	3197	3020	2721
40°	3014	2751	2477
45°	2842	2544	2239
50°	2631	2361	1996
55°	2434	2139	1788
60°	2230	1912	1602
65°	1961	1673	1419
70°	1618	1467	1205
75°	1285	1123	1177
80°	862	812	756
85°	543	642	753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2842 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.0	4.7
10°-20°	96.2	13.0
20°-30°	133.1	18.0
30°-40°	142.0	19.2
40°-50°	129.5	17.5
50°-60°	101.5	13.7
60°-70°	66.1	8.9
70°-80°	29.3	4.0
80°-90°	6.3	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°	264.3	35.8
0°-40°	406.3	55.0
0°-60°	637.3	86.2
0°-90°	739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	739.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	376	376	376	376	376	
5°	370	370	370	369	369	35
15°	346	346	342	339	338	97
25°	300	298	293	283	275	138
35°	243	242	230	212	207	152
45°	187	183	167	153	147	144
55°	130	126	114	100	95	116
65°	77	73	66	67	56	76
75°	31	29	27	26	28	33
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°	376.4	376.4	376.4	376.4	376.4
2.5°	373.8	373.8	373.8	373.4	373.4
5°	369.9	369.5	369.5	369.0	369.0
7.5°	366.9	366.4	366.0	365.6	364.7
10°	362.5	362.5	362.1	359.9	359.5
12.5°	355.5	355.1	353.4	350.3	349.5
15°	346.0	346.0	342.5	339.0	337.7
17.5°	335.5	335.1	330.7	327.3	325.5
20°	324.2	323.3	319.0	313.3	310.3
22.5°	311.6	311.6	306.4	299.0	295.9
25°	299.8	298.1	293.3	282.9	275.0
27.5°	286.4	283.7	278.5	263.7	254.6
30°	271.6	270.3	262.9	243.7	236.7
32.5°	257.6	255.5	247.6	227.6	221.9
35°	243.3	241.5	229.8	212.4	207.1
37.5°	228.9	226.7	211.9	198.0	191.5
40°	214.5	211.9	195.8	183.2	176.3
42.5°	201.1	197.6	181.9	168.4	160.6
45°	186.7	182.8	167.1	153.2	147.1
47.5°	172.3	168.9	154.5	140.1	133.2
50°	157.1	154.1	141.0	126.6	119.2
52.5°	144.5	139.7	127.1	112.7	106.6
55°	129.7	125.8	114.0	100.5	95.3
57.5°	116.2	112.3	101.4	88.8	84.4
60°	103.6	97.9	88.8	77.9	74.4
62.5°	89.6	85.3	77.5	68.3	72.7
65°	77.0	72.7	65.7	67.0	55.7
67.5°	63.1	60.9	54.8	48.7	47.0
70°	51.4	48.7	46.6	40.0	38.3
72.5°	40.9	38.3	35.3	31.8	30.5
75°	30.9	28.7	27.0	25.7	28.3
77.5°	21.3	20.5	19.1	17.8	17.4
80°	13.9	13.5	13.1	12.6	12.2
82.5°	8.3	8.3	8.3	8.3	8.3
85°	4.4	4.8	5.2	5.7	6.1
87.5°	2.6	2.6	3.0	3.5	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)