

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: P560145

Luminaire Tested: FSR-12-2-LD4-1STD-50-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560145
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-LD4-1STD-50-UNV-82-84-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1457.0 lumens
Efficiency: N/A
Efficacy: 87.8 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

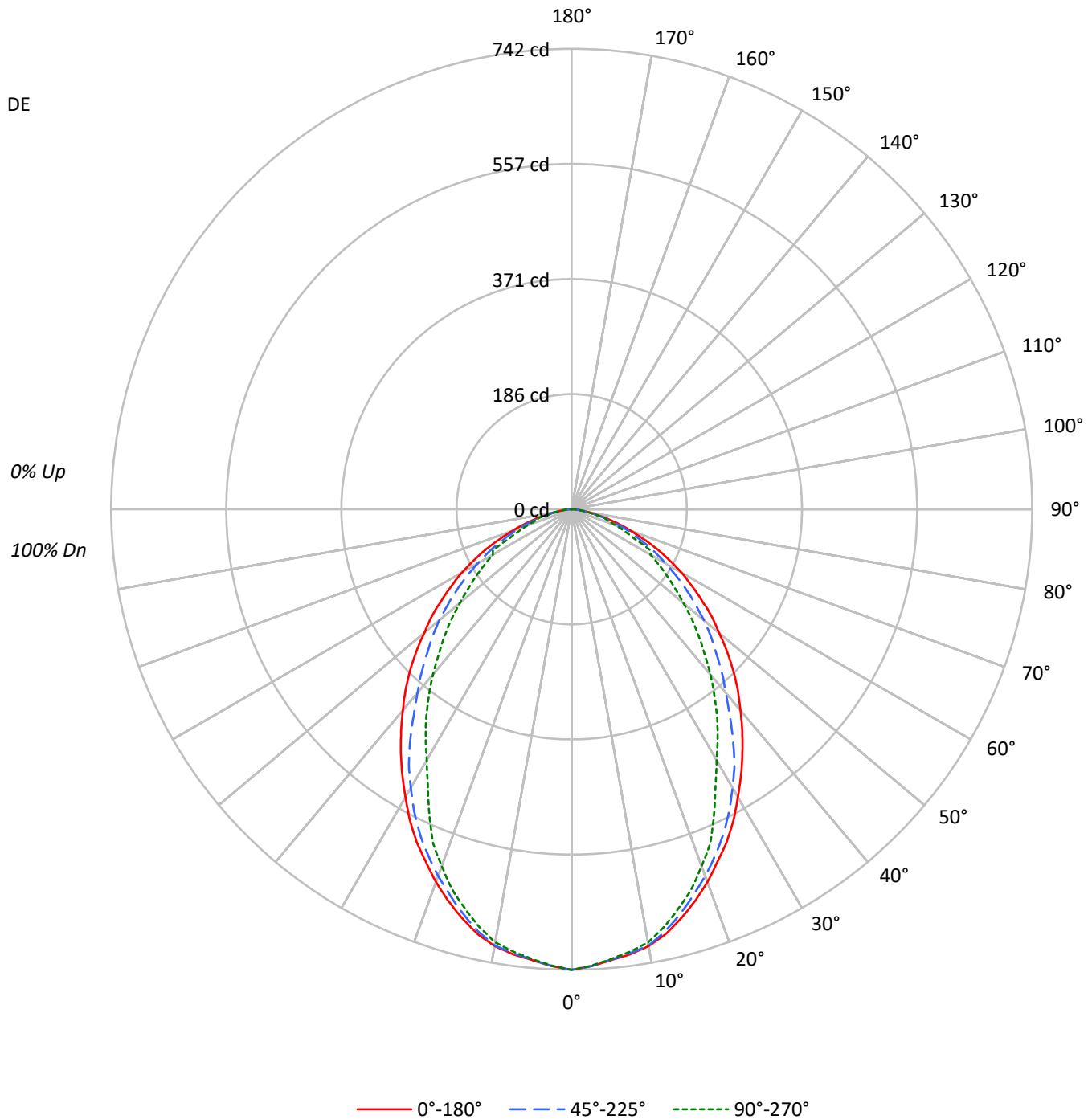
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3994	3994	3994
5°	3940	3935	3931
10°	3906	3901	3873
15°	3801	3763	3710
20°	3661	3602	3504
25°	3511	3434	3220
30°	3327	3220	2901
35°	3151	2976	2683
40°	2972	2713	2441
45°	2802	2508	2207
50°	2593	2328	1968
55°	2399	2109	1763
60°	2198	1884	1579
65°	1934	1650	1398
70°	1592	1445	1188
75°	1266	1106	1160
80°	852	797	744
85°	531	636	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2802 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	4.7
10°-20°	189.6	13.0
20°-30°	262.5	18.0
30°-40°	279.9	19.2
40°-50°	255.3	17.5
50°-60°	200.0	13.7
60°-70°	130.4	8.9
70°-80°	57.8	4.0
80°-90°	12.4	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°	521.2	35.8
0°-40°	801.1	55.0
0°-60°	1256.4	86.2
0°-90°	1457.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1457.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	742	742	742	742	742	
5°	729	728	728	728	728	69
15°	682	682	675	668	666	192
25°	591	588	578	558	542	271
35°	480	476	453	419	408	300
45°	368	360	330	302	290	284
55°	256	248	225	198	188	229
65°	152	143	130	132	110	150
75°	61	57	53	51	56	65
85°	9	9	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°	742.2	742.2	742.2	742.2	742.2
2.5°	737.0	737.0	737.0	736.2	736.2
5°	729.3	728.4	728.4	727.6	727.6
7.5°	723.3	722.4	721.6	720.7	719.0
10°	714.7	714.7	713.9	709.6	708.7
12.5°	701.0	700.1	696.7	690.7	689.0
15°	682.1	682.1	675.3	668.4	665.8
17.5°	661.5	660.7	652.1	645.2	641.8
20°	639.2	637.5	628.9	617.8	611.8
22.5°	614.3	614.3	604.0	589.5	583.4
25°	591.2	587.7	578.3	557.7	542.3
27.5°	564.6	559.4	549.1	520.0	501.9
30°	535.4	532.8	518.2	480.5	466.8
32.5°	507.9	503.7	488.2	448.7	437.6
35°	479.6	476.2	453.0	418.7	408.4
37.5°	451.3	447.0	417.8	390.4	377.5
40°	423.0	417.8	386.1	361.2	347.5
42.5°	396.4	389.5	358.6	332.0	316.6
45°	368.1	360.4	329.5	302.0	290.0
47.5°	339.8	332.9	304.6	276.3	262.6
50°	309.7	303.7	278.0	249.7	235.1
52.5°	284.9	275.4	250.5	222.2	210.2
55°	255.7	248.0	224.8	198.2	187.9
57.5°	229.1	221.4	199.9	175.0	166.5
60°	204.2	193.1	175.0	153.6	146.7
62.5°	176.7	168.2	152.7	134.7	143.3
65°	151.9	143.3	129.6	132.1	109.8
67.5°	124.4	120.1	108.1	96.1	92.7
70°	101.2	96.1	91.8	78.9	75.5
72.5°	80.7	75.5	69.5	62.6	60.1
75°	60.9	56.6	53.2	50.6	55.8
77.5°	42.0	40.3	37.8	35.2	34.3
80°	27.5	26.6	25.7	24.9	24.0
82.5°	16.3	16.3	16.3	16.3	16.3
85°	8.6	9.4	10.3	11.2	12.0
87.5°	5.1	5.1	6.0	6.9	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)