

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: P560073

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560073
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-40-UNV-81-88-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1236.0 lumens
Efficiency: N/A
Efficacy: 74.5 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

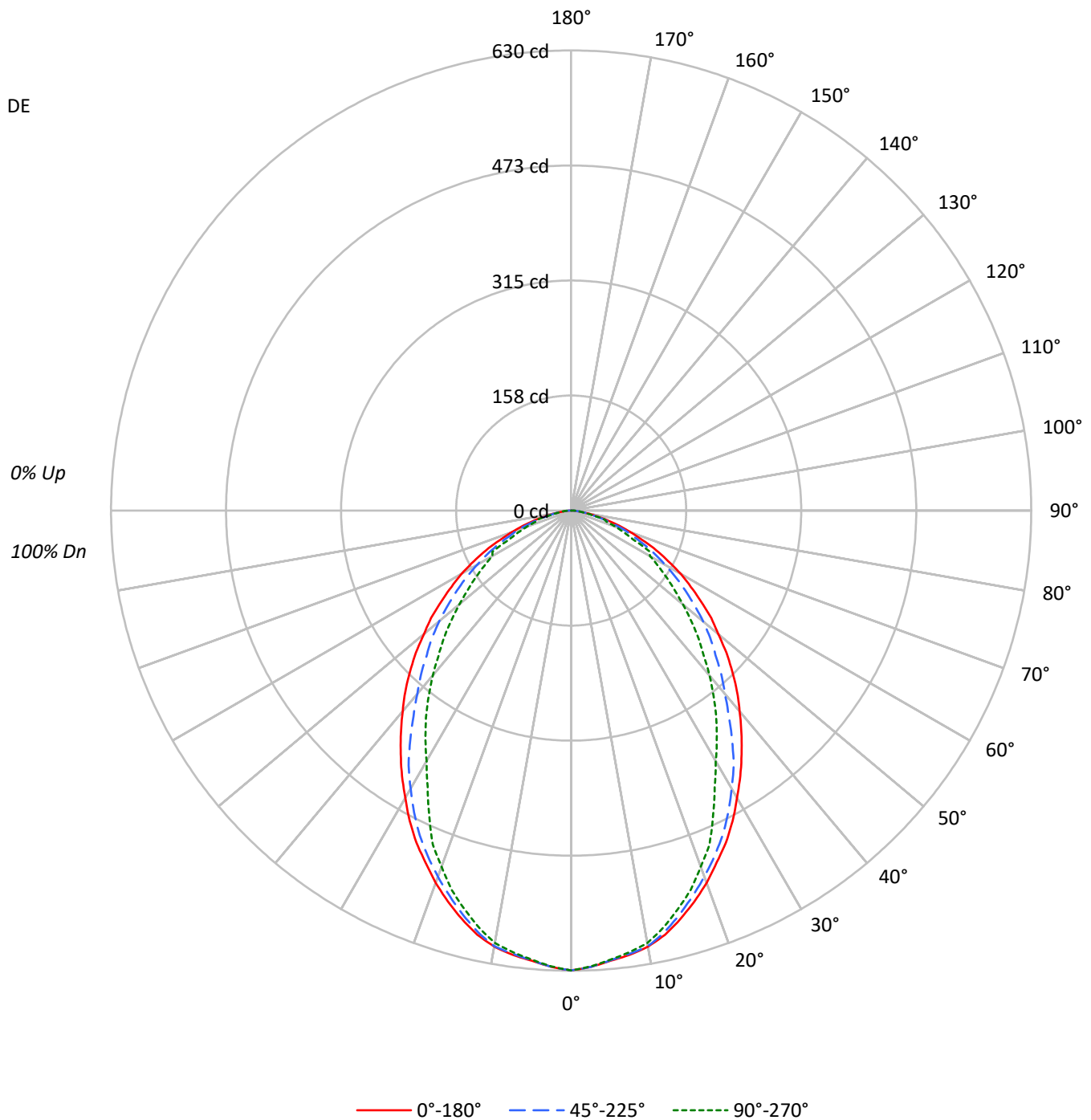
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	3388	3388	3388
5°	3343	3339	3334
10°	3313	3310	3286
15°	3224	3192	3147
20°	3106	3056	2972
25°	2978	2913	2732
30°	2823	2732	2461
35°	2673	2525	2277
40°	2521	2301	2071
45°	2377	2127	1872
50°	2200	1974	1670
55°	2035	1789	1496
60°	1864	1598	1340
65°	1640	1400	1187
70°	1352	1226	1009
75°	1075	938	984
80°	722	676	632
85°	451	537	630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2377 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.6	4.7
10°-20°	160.8	13.0
20°-30°	222.7	18.0
30°-40°	237.4	19.2
40°-50°	216.6	17.5
50°-60°	169.7	13.7
60°-70°	110.6	8.9
70°-80°	49.0	4.0
80°-90°	10.5	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°	442.1	35.8
0°-40°	679.6	55.0
0°-60°	1065.9	86.2
0°-90°	1236.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1236.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	630	630	630	630	630	
5°	619	618	618	617	617	59
15°	579	579	573	567	565	163
25°	502	499	491	473	460	230
35°	407	404	384	355	346	254
45°	312	306	280	256	246	241
55°	217	210	191	168	159	195
65°	129	122	110	112	93	127
75°	52	48	45	43	47	55
85°	7	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	629.6	629.6	629.6	629.6	629.6
2.5°	625.2	625.2	625.2	624.5	624.5
5°	618.7	618.0	618.0	617.2	617.2
7.5°	613.6	612.9	612.1	611.4	609.9
10°	606.3	606.3	605.6	601.9	601.2
12.5°	594.7	593.9	591.0	585.9	584.5
15°	578.7	578.7	572.8	567.0	564.8
17.5°	561.2	560.5	553.2	547.4	544.4
20°	542.3	540.8	533.5	524.1	519.0
22.5°	521.2	521.2	512.4	500.0	494.9
25°	501.5	498.6	490.6	473.1	460.0
27.5°	478.9	474.6	465.8	441.1	425.8
30°	454.2	452.0	439.6	407.6	396.0
32.5°	430.9	427.3	414.2	380.7	371.2
35°	406.9	404.0	384.3	355.2	346.5
37.5°	382.9	379.2	354.5	331.2	320.3
40°	358.8	354.5	327.5	306.4	294.8
42.5°	336.3	330.5	304.2	281.7	268.6
45°	312.3	305.7	279.5	256.2	246.0
47.5°	288.2	282.4	258.4	234.4	222.7
50°	262.8	257.7	235.8	211.8	199.4
52.5°	241.7	233.6	212.5	188.5	178.3
55°	216.9	210.4	190.7	168.1	159.4
57.5°	194.3	187.8	169.6	148.5	141.2
60°	173.2	163.8	148.5	130.3	124.5
62.5°	149.9	142.7	129.6	114.3	121.6
65°	128.8	121.6	109.9	112.1	93.2
67.5°	105.5	101.9	91.7	81.5	78.6
70°	85.9	81.5	77.9	67.0	64.1
72.5°	68.4	64.1	59.0	53.1	51.0
75°	51.7	48.0	45.1	42.9	47.3
77.5°	35.7	34.2	32.0	29.8	29.1
80°	23.3	22.6	21.8	21.1	20.4
82.5°	13.8	13.8	13.8	13.8	13.8
85°	7.3	8.0	8.7	9.5	10.2
87.5°	4.4	4.4	5.1	5.8	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)