

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: P559442

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559442
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-35-UNV-82-85-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1200.0 lumens
Efficiency: N/A
Efficacy: 72.3 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

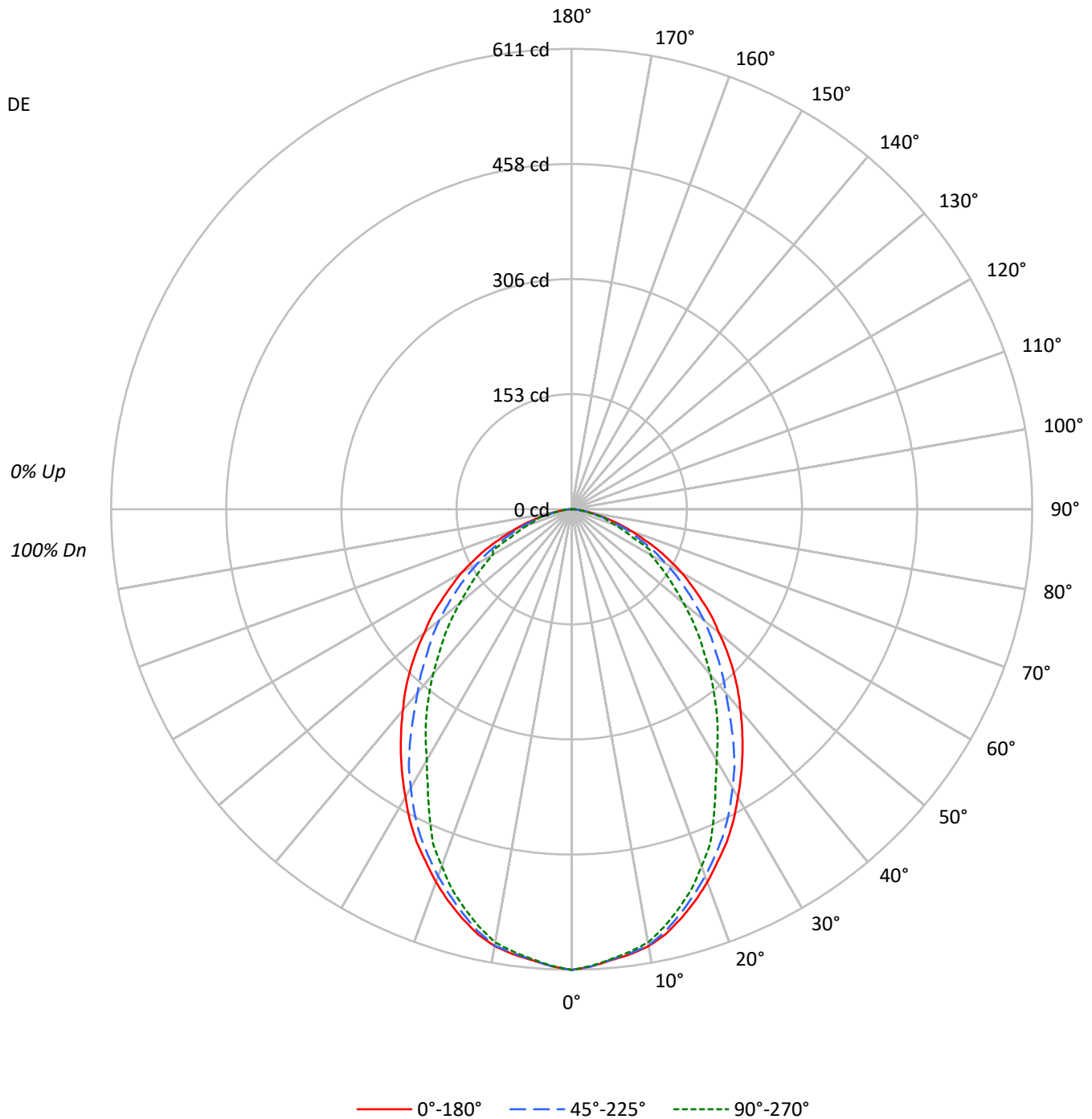
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6580	6580	6580
5°	6491	6483	6475
10°	6434	6426	6380
15°	6260	6197	6111
20°	6031	5934	5772
25°	5783	5657	5304
30°	5481	5305	4778
35°	5190	4903	4420
40°	4895	4468	4021
45°	4615	4131	3637
50°	4272	3835	3242
55°	3952	3474	2905
60°	3621	3104	2601
65°	3186	2718	2305
70°	2625	2379	1958
75°	2088	1822	1909
80°	1401	1314	1227
85°	877	1050	1223

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4615 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.9	4.7
10°-20°	156.2	13.0
20°-30°	216.2	18.0
30°-40°	230.5	19.2
40°-50°	210.3	17.5
50°-60°	164.8	13.7
60°-70°	107.4	8.9
70°-80°	47.6	4.0
80°-90°	10.2	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°	429.3	35.8
0°-40°	659.8	55.0
0°-60°	1034.8	86.2
0°-90°	1200.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1200.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	611	611	611	611	611	
5°	601	600	600	599	599	57
15°	562	562	556	550	548	158
25°	487	484	476	459	447	224
35°	395	392	373	345	336	247
45°	303	297	271	249	239	234
55°	211	204	185	163	155	189
65°	125	118	107	109	90	123
75°	50	47	44	42	46	54
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	611.3	611.3	611.3	611.3	611.3
2.5°	607.0	607.0	607.0	606.3	606.3
5°	600.7	600.0	600.0	599.3	599.3
7.5°	595.7	595.0	594.3	593.6	592.2
10°	588.7	588.7	587.9	584.4	583.7
12.5°	577.3	576.6	573.8	568.9	567.5
15°	561.8	561.8	556.1	550.5	548.4
17.5°	544.8	544.1	537.1	531.4	528.6
20°	526.5	525.1	518.0	508.8	503.9
22.5°	506.0	506.0	497.5	485.5	480.5
25°	486.9	484.1	476.3	459.3	446.6
27.5°	465.0	460.7	452.3	428.2	413.4
30°	441.0	438.8	426.8	395.7	384.4
32.5°	418.3	414.8	402.1	369.6	360.4
35°	395.0	392.2	373.1	344.9	336.4
37.5°	371.7	368.2	344.1	321.5	310.9
40°	348.4	344.1	318.0	297.5	286.2
42.5°	326.5	320.8	295.4	273.5	260.8
45°	303.2	296.8	271.4	248.7	238.9
47.5°	279.8	274.2	250.9	227.5	216.2
50°	255.1	250.2	229.0	205.6	193.6
52.5°	234.6	226.8	206.3	183.0	173.1
55°	210.6	204.2	185.1	163.2	154.8
57.5°	188.7	182.3	164.7	144.2	137.1
60°	168.2	159.0	144.2	126.5	120.8
62.5°	145.6	138.5	125.8	110.9	118.0
65°	125.1	118.0	106.7	108.8	90.5
67.5°	102.5	98.9	89.0	79.1	76.3
70°	83.4	79.1	75.6	65.0	62.2
72.5°	66.4	62.2	57.2	51.6	49.5
75°	50.2	46.6	43.8	41.7	45.9
77.5°	34.6	33.2	31.1	29.0	28.3
80°	22.6	21.9	21.2	20.5	19.8
82.5°	13.4	13.4	13.4	13.4	13.4
85°	7.1	7.8	8.5	9.2	9.9
87.5°	4.2	4.2	4.9	5.7	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)