

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: P559497

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559497
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-81-88-EDD
Description: 1X1 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: 1275.0 lumens
Efficiency: N/A
Efficacy: 76.8 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

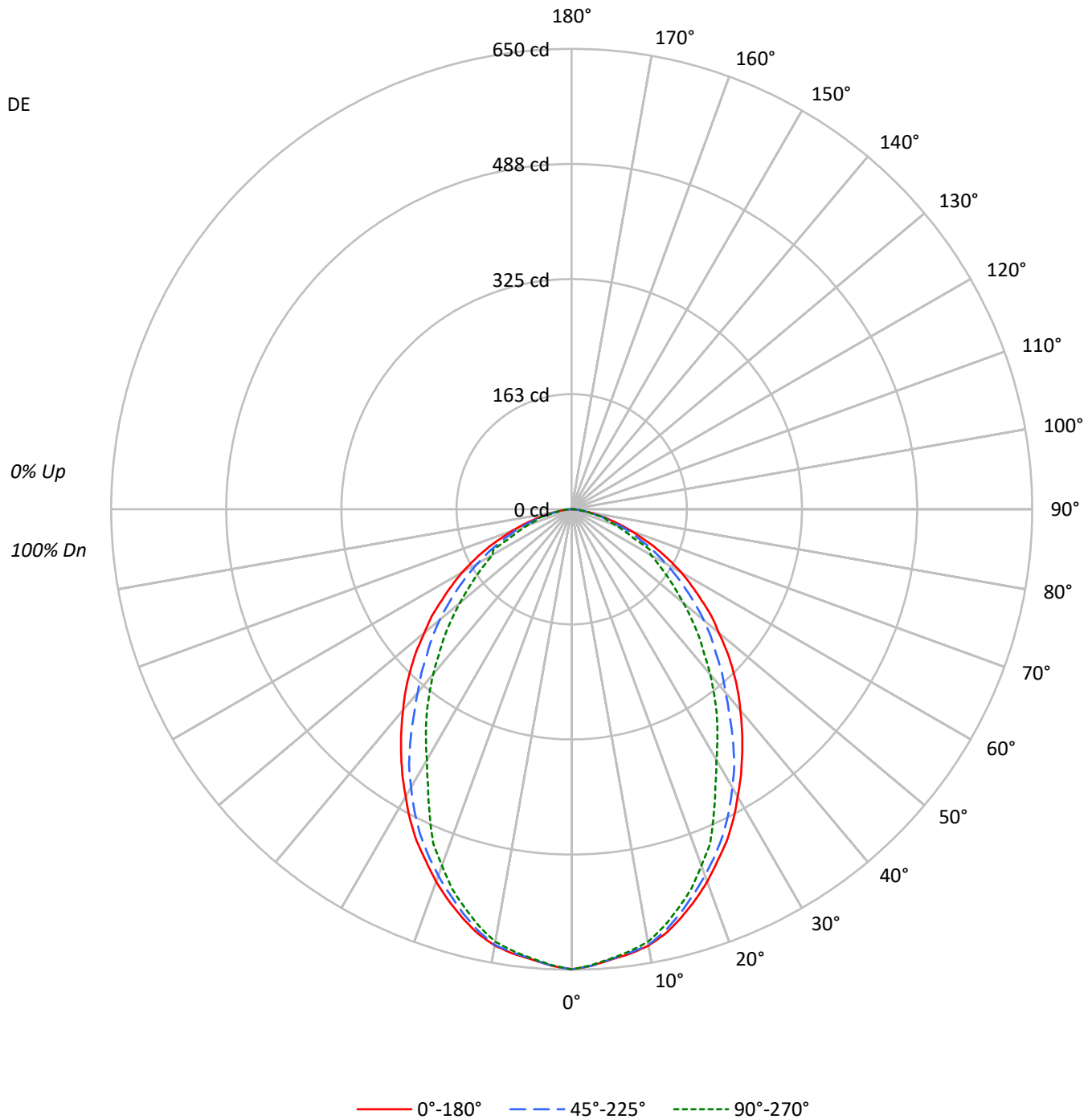
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6991	6991	6991
5°	6896	6888	6880
10°	6836	6828	6779
15°	6652	6585	6492
20°	6408	6305	6132
25°	6144	6011	5635
30°	5823	5637	5077
35°	5515	5209	4696
40°	5202	4748	4273
45°	4903	4389	3863
50°	4538	4074	3445
55°	4198	3691	3085
60°	3847	3298	2764
65°	3385	2888	2448
70°	2788	2527	2080
75°	2217	1938	2030
80°	1488	1395	1302
85°	926	1112	1297

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4903 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.5	4.7
10°-20°	165.9	13.0
20°-30°	229.7	18.0
30°-40°	244.9	19.2
40°-50°	223.4	17.5
50°-60°	175.0	13.7
60°-70°	114.1	8.9
70°-80°	50.6	4.0
80°-90°	10.9	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°	456.1	35.8
0°-40°	701.0	55.0
0°-60°	1099.5	86.2
0°-90°	1275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	638	638	638	637	637	61
15°	597	597	591	585	583	168
25°	517	514	506	488	474	237
35°	420	417	396	366	357	262
45°	322	315	288	264	254	248
55°	224	217	197	173	164	201
65°	133	125	113	116	96	131
75°	53	50	47	44	49	57
85°	8	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°	649.5	649.5	649.5	649.5	649.5
2.5°	645.0	645.0	645.0	644.2	644.2
5°	638.2	637.5	637.5	636.7	636.7
7.5°	632.9	632.2	631.4	630.7	629.2
10°	625.4	625.4	624.7	620.9	620.2
12.5°	613.4	612.7	609.7	604.4	602.9
15°	596.9	596.9	590.9	584.9	582.6
17.5°	578.9	578.1	570.6	564.6	561.6
20°	559.4	557.9	550.4	540.6	535.3
22.5°	537.6	537.6	528.6	515.8	510.6
25°	517.3	514.3	506.1	488.0	474.5
27.5°	494.0	489.5	480.5	455.0	439.2
30°	468.5	466.3	453.5	420.5	408.5
32.5°	444.5	440.7	427.2	392.7	382.9
35°	419.7	416.7	396.4	366.4	357.4
37.5°	394.9	391.2	365.7	341.6	330.4
40°	370.2	365.7	337.9	316.1	304.1
42.5°	346.9	340.9	313.8	290.6	277.1
45°	322.1	315.3	288.3	264.3	253.8
47.5°	297.3	291.3	266.5	241.8	229.8
50°	271.0	265.8	243.3	218.5	205.7
52.5°	249.3	241.0	219.2	194.5	184.0
55°	223.7	217.0	196.7	173.4	164.4
57.5°	200.5	193.7	174.9	153.2	145.7
60°	178.7	168.9	153.2	134.4	128.4
62.5°	154.7	147.2	133.6	117.9	125.4
65°	132.9	125.4	113.4	115.6	96.1
67.5°	108.9	105.1	94.6	84.1	81.1
70°	88.6	84.1	80.3	69.1	66.1
72.5°	70.6	66.1	60.8	54.8	52.6
75°	53.3	49.6	46.6	44.3	48.8
77.5°	36.8	35.3	33.0	30.8	30.0
80°	24.0	23.3	22.5	21.8	21.0
82.5°	14.3	14.3	14.3	14.3	14.3
85°	7.5	8.3	9.0	9.8	10.5
87.5°	4.5	4.5	5.3	6.0	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)