

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: P558725

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-81-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558725
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-LD4-1LO-40-UNV-81-86-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 546.0 lumens
Efficiency: N/A
Efficacy: 94.1 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

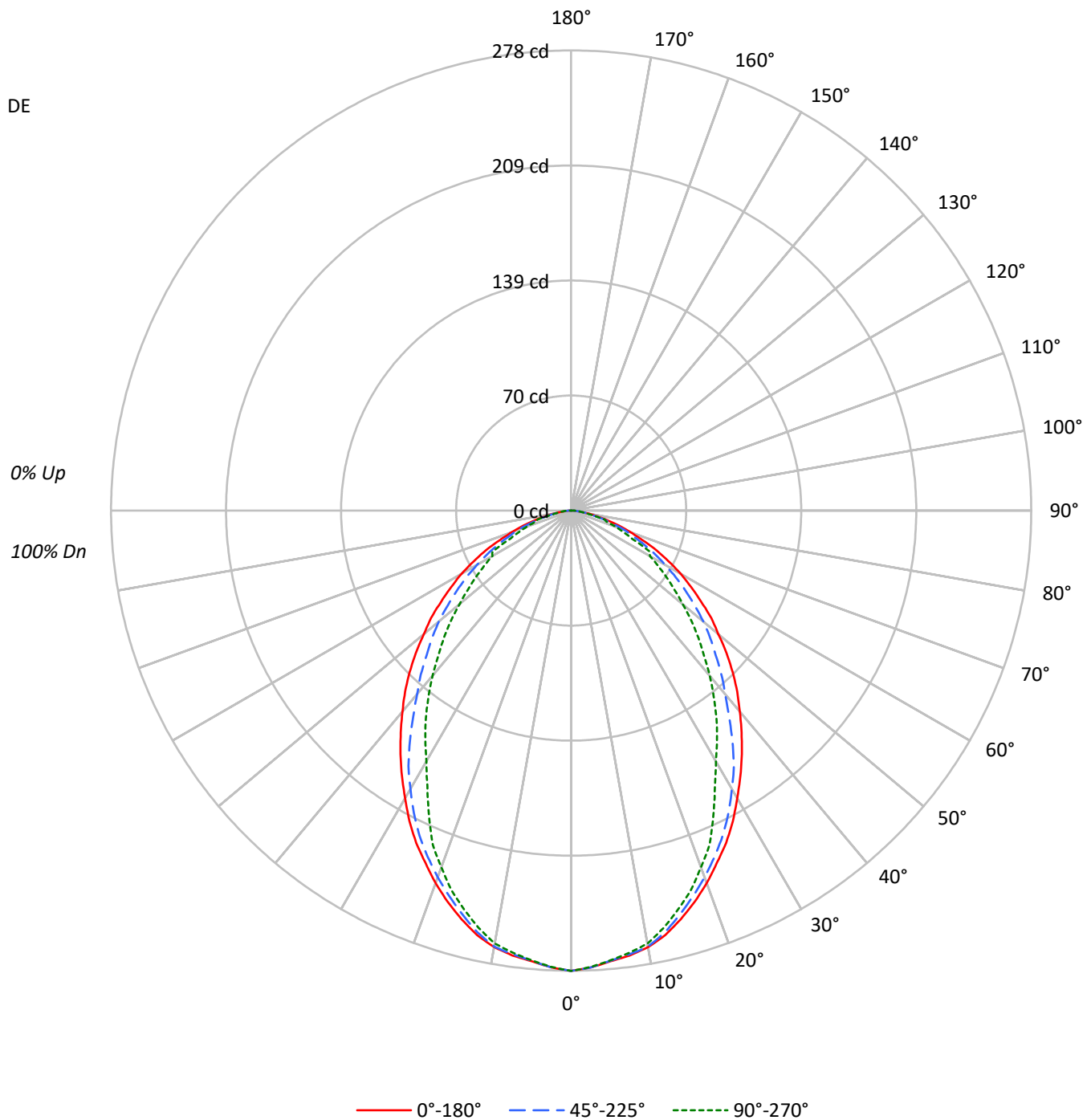
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2993	2993	2993
5°	2953	2950	2947
10°	2927	2924	2903
15°	2848	2819	2780
20°	2743	2700	2627
25°	2631	2574	2413
30°	2493	2414	2174
35°	2361	2231	2010
40°	2227	2033	1829
45°	2099	1880	1655
50°	1944	1745	1475
55°	1798	1580	1321
60°	1647	1412	1184
65°	1449	1238	1049
70°	1193	1083	891
75°	948	828	869
80°	638	595	558
85°	395	482	556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2099 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.9	4.7
10°-20°	71.1	13.0
20°-30°	98.4	18.0
30°-40°	104.9	19.2
40°-50°	95.7	17.5
50°-60°	75.0	13.7
60°-70°	48.9	8.9
70°-80°	21.6	4.0
80°-90°	4.6	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°	195.3	35.8
0°-40°	300.2	55.0
0°-60°	470.8	86.2
0°-90°	546.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	546.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	278	278	278	278	278	
5°	273	273	273	273	273	26
15°	256	256	253	250	250	72
25°	222	220	217	209	203	102
35°	180	178	170	157	153	112
45°	138	135	124	113	109	106
55°	96	93	84	74	70	86
65°	57	54	49	50	41	56
75°	23	21	20	19	21	24
85°	3	4	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	278.1	278.1	278.1	278.1	278.1
2.5°	276.2	276.2	276.2	275.9	275.9
5°	273.3	273.0	273.0	272.7	272.7
7.5°	271.1	270.7	270.4	270.1	269.4
10°	267.8	267.8	267.5	265.9	265.6
12.5°	262.7	262.4	261.1	258.8	258.2
15°	255.6	255.6	253.0	250.5	249.5
17.5°	247.9	247.6	244.4	241.8	240.5
20°	239.5	238.9	235.7	231.5	229.3
22.5°	230.2	230.2	226.4	220.9	218.6
25°	221.5	220.2	216.7	209.0	203.2
27.5°	211.6	209.6	205.8	194.8	188.1
30°	200.6	199.7	194.2	180.1	174.9
32.5°	190.3	188.7	183.0	168.2	164.0
35°	179.7	178.5	169.8	156.9	153.0
37.5°	169.1	167.5	156.6	146.3	141.5
40°	158.5	156.6	144.7	135.4	130.2
42.5°	148.5	146.0	134.4	124.4	118.6
45°	137.9	135.0	123.5	113.2	108.7
47.5°	127.3	124.8	114.1	103.5	98.4
50°	116.1	113.8	104.2	93.6	88.1
52.5°	106.7	103.2	93.9	83.3	78.8
55°	95.8	92.9	84.2	74.3	70.4
57.5°	85.8	83.0	74.9	65.6	62.4
60°	76.5	72.3	65.6	57.6	55.0
62.5°	66.2	63.0	57.2	50.5	53.7
65°	56.9	53.7	48.6	49.5	41.2
67.5°	46.6	45.0	40.5	36.0	34.7
70°	37.9	36.0	34.4	29.6	28.3
72.5°	30.2	28.3	26.0	23.5	22.5
75°	22.8	21.2	19.9	19.0	20.9
77.5°	15.8	15.1	14.1	13.2	12.9
80°	10.3	10.0	9.6	9.3	9.0
82.5°	6.1	6.1	6.1	6.1	6.1
85°	3.2	3.5	3.9	4.2	4.5
87.5°	1.9	1.9	2.3	2.6	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)