

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: P558744

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558744
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-82-88-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 392.0 lumens
Efficiency: N/A
Efficacy: 67.6 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

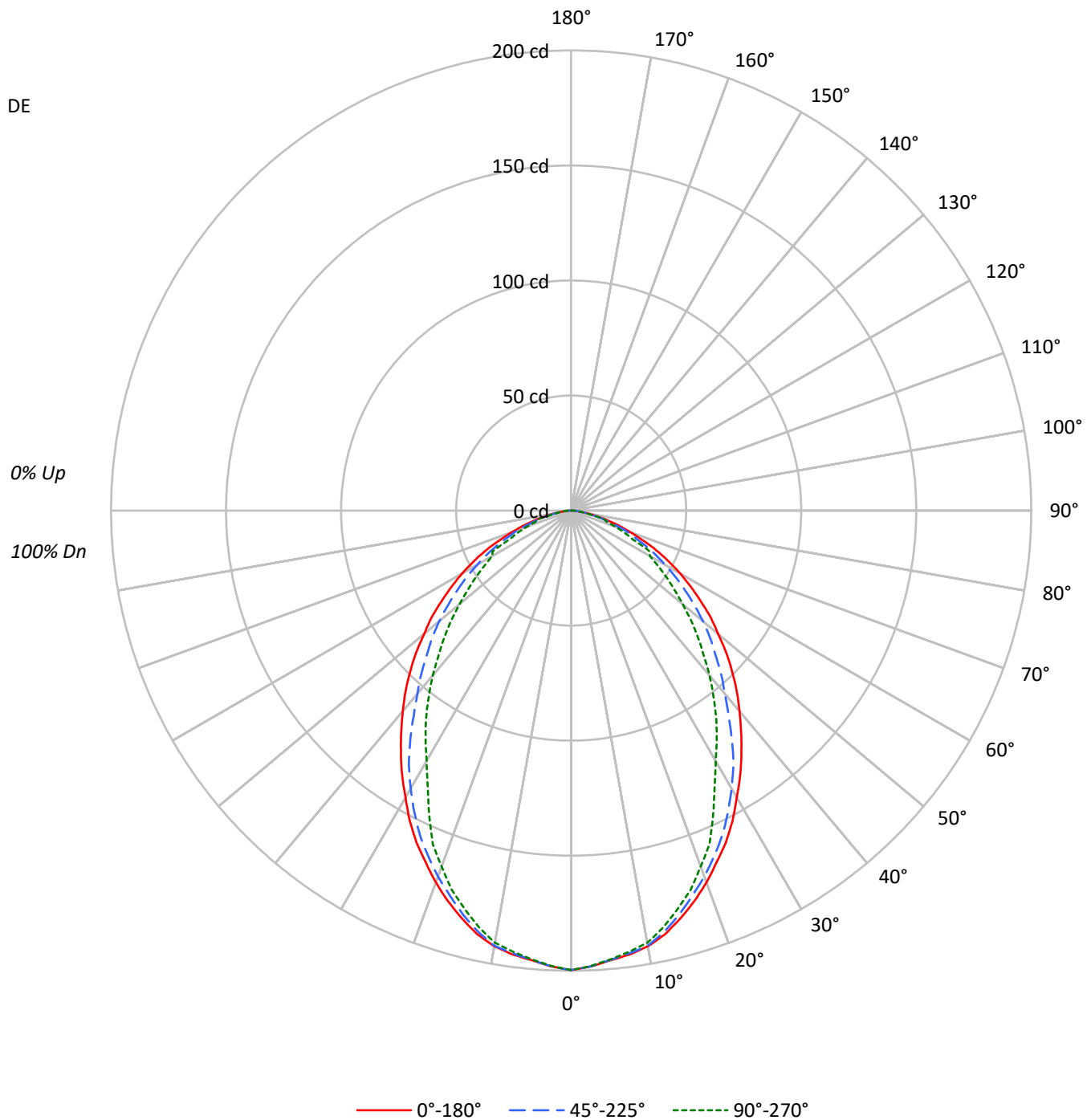
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	2150	2150	2150
5°	2120	2118	2116
10°	2102	2100	2084
15°	2045	2025	1996
20°	1970	1938	1885
25°	1890	1848	1733
30°	1790	1733	1561
35°	1695	1602	1444
40°	1599	1460	1314
45°	1507	1349	1187
50°	1395	1253	1060
55°	1291	1135	950
60°	1182	1014	850
65°	1042	889	751
70°	856	777	639
75°	682	595	624
80°	459	428	403
85°	284	346	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1507 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.6	4.7
10°-20°	51.0	13.0
20°-30°	70.6	18.0
30°-40°	75.3	19.2
40°-50°	68.7	17.5
50°-60°	53.8	13.7
60°-70°	35.1	8.9
70°-80°	15.5	4.0
80°-90°	3.3	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°	140.2	35.8
0°-40°	215.5	55.0
0°-60°	338.0	86.2
0°-90°	392.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	392.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	200	200	200	200	200	
5°	196	196	196	196	196	19
15°	184	184	182	180	179	52
25°	159	158	156	150	146	73
35°	129	128	122	113	110	81
45°	99	97	89	81	78	76
55°	69	67	60	53	51	62
65°	41	39	35	36	30	40
75°	16	15	14	14	15	18
85°	2	2	3	3	3	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	199.7	199.7	199.7	199.7	199.7
2.5°	198.3	198.3	198.3	198.1	198.1
5°	196.2	196.0	196.0	195.8	195.8
7.5°	194.6	194.4	194.1	193.9	193.4
10°	192.3	192.3	192.1	190.9	190.7
12.5°	188.6	188.4	187.4	185.8	185.4
15°	183.5	183.5	181.7	179.8	179.1
17.5°	178.0	177.7	175.4	173.6	172.7
20°	172.0	171.5	169.2	166.2	164.6
22.5°	165.3	165.3	162.5	158.6	157.0
25°	159.1	158.1	155.6	150.0	145.9
27.5°	151.9	150.5	147.7	139.9	135.0
30°	144.0	143.4	139.4	129.3	125.6
32.5°	136.7	135.5	131.3	120.7	117.7
35°	129.0	128.1	121.9	112.7	109.9
37.5°	121.4	120.3	112.4	105.0	101.6
40°	113.8	112.4	103.9	97.2	93.5
42.5°	106.6	104.8	96.5	89.3	85.2
45°	99.0	97.0	88.6	81.3	78.0
47.5°	91.4	89.6	81.9	74.3	70.6
50°	83.3	81.7	74.8	67.2	63.3
52.5°	76.6	74.1	67.4	59.8	56.6
55°	68.8	66.7	60.5	53.3	50.6
57.5°	61.6	59.6	53.8	47.1	44.8
60°	54.9	51.9	47.1	41.3	39.5
62.5°	47.6	45.2	41.1	36.2	38.6
65°	40.9	38.6	34.9	35.5	29.5
67.5°	33.5	32.3	29.1	25.9	24.9
70°	27.2	25.9	24.7	21.2	20.3
72.5°	21.7	20.3	18.7	16.9	16.2
75°	16.4	15.2	14.3	13.6	15.0
77.5°	11.3	10.8	10.2	9.5	9.2
80°	7.4	7.2	6.9	6.7	6.5
82.5°	4.4	4.4	4.4	4.4	4.4
85°	2.3	2.5	2.8	3.0	3.2
87.5°	1.4	1.4	1.6	1.8	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)