

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: P558729

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558729
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-81-88-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

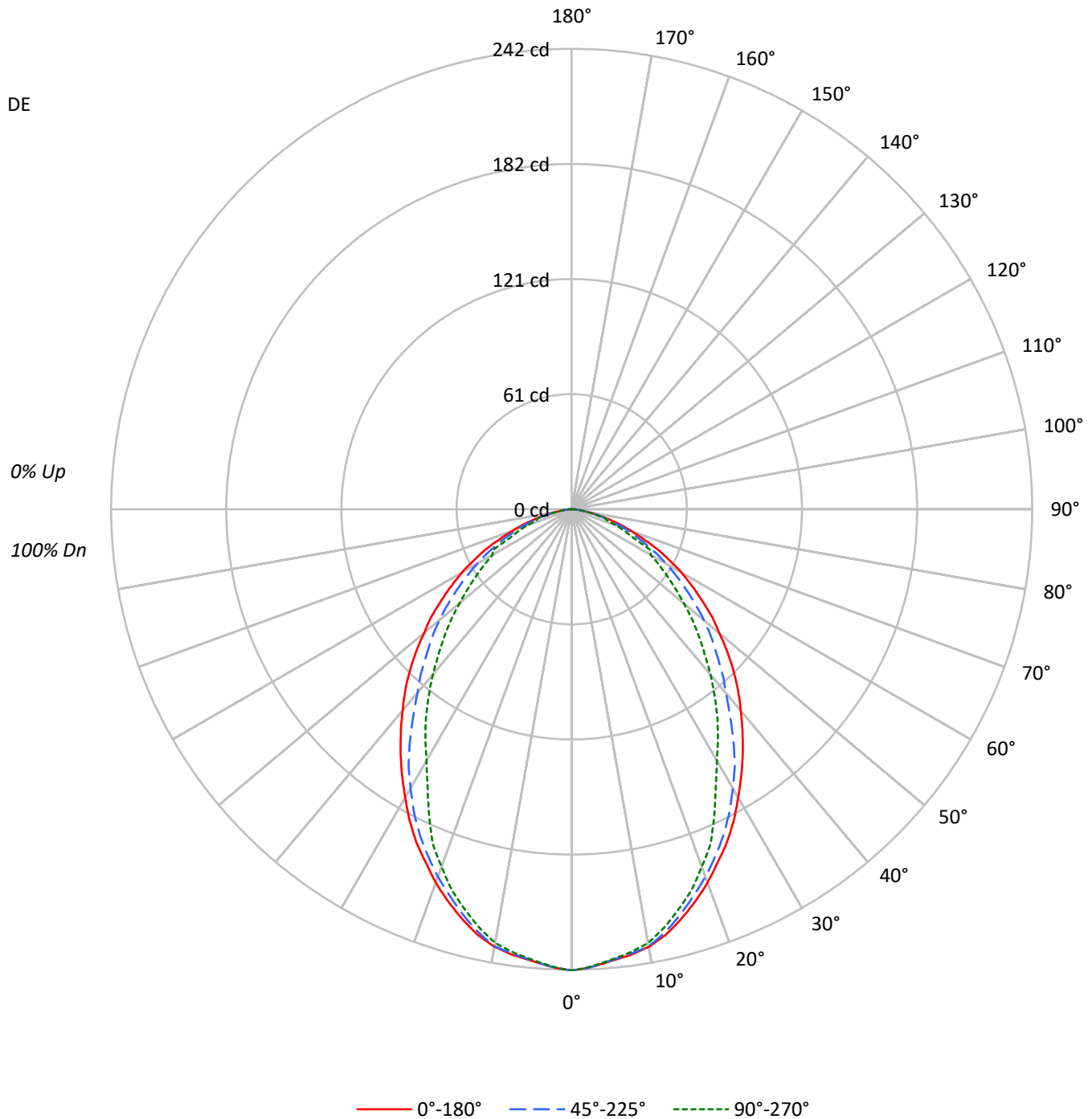
Lumens per Lamp: N/A
Luminaire Lumens: 476.0 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	2610	2610	2610
5°	2575	2572	2568
10°	2552	2549	2530
15°	2483	2458	2424
20°	2392	2354	2290
25°	2293	2244	2105
30°	2174	2104	1895
35°	2059	1945	1753
40°	1942	1772	1595
45°	1831	1638	1442
50°	1695	1521	1286
55°	1567	1377	1152
60°	1436	1231	1031
65°	1263	1077	914
70°	1042	944	777
75°	828	724	757
80°	558	521	483
85°	346	420	482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1831 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.6	4.7
10°-20°	61.9	13.0
20°-30°	85.8	18.0
30°-40°	91.4	19.2
40°-50°	83.4	17.5
50°-60°	65.4	13.7
60°-70°	42.6	8.9
70°-80°	18.9	4.0
80°-90°	4.0	0.8
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°	170.3	35.8
0°-40°	261.7	55.0
0°-60°	410.5	86.2
0°-90°	476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	476.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	242	242	242	242	242	
5°	238	238	238	238	238	23
15°	223	223	221	218	218	63
25°	193	192	189	182	177	89
35°	157	156	148	137	133	98
45°	120	118	108	99	95	93
55°	84	81	73	65	61	75
65°	50	47	42	43	36	49
75°	20	18	17	16	18	21
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	242.5	242.5	242.5	242.5	242.5
2.5°	240.8	240.8	240.8	240.5	240.5
5°	238.3	238.0	238.0	237.7	237.7
7.5°	236.3	236.0	235.7	235.5	234.9
10°	233.5	233.5	233.2	231.8	231.5
12.5°	229.0	228.7	227.6	225.6	225.1
15°	222.8	222.8	220.6	218.4	217.5
17.5°	216.1	215.8	213.0	210.8	209.7
20°	208.8	208.3	205.5	201.8	199.9
22.5°	200.7	200.7	197.3	192.6	190.6
25°	193.1	192.0	188.9	182.2	177.2
27.5°	184.4	182.8	179.4	169.9	164.0
30°	174.9	174.1	169.3	157.0	152.5
32.5°	165.9	164.5	159.5	146.6	143.0
35°	156.7	155.6	148.0	136.8	133.4
37.5°	147.4	146.0	136.5	127.5	123.3
40°	138.2	136.5	126.1	118.0	113.5
42.5°	129.5	127.3	117.2	108.5	103.4
45°	120.3	117.7	107.6	98.7	94.7
47.5°	111.0	108.8	99.5	90.3	85.8
50°	101.2	99.2	90.8	81.6	76.8
52.5°	93.1	90.0	81.9	72.6	68.7
55°	83.5	81.0	73.4	64.8	61.4
57.5°	74.8	72.3	65.3	57.2	54.4
60°	66.7	63.1	57.2	50.2	47.9
62.5°	57.7	54.9	49.9	44.0	46.8
65°	49.6	46.8	42.3	43.2	35.9
67.5°	40.6	39.2	35.3	31.4	30.3
70°	33.1	31.4	30.0	25.8	24.7
72.5°	26.3	24.7	22.7	20.5	19.6
75°	19.9	18.5	17.4	16.5	18.2
77.5°	13.7	13.2	12.3	11.5	11.2
80°	9.0	8.7	8.4	8.1	7.8
82.5°	5.3	5.3	5.3	5.3	5.3
85°	2.8	3.1	3.4	3.6	3.9
87.5°	1.7	1.7	2.0	2.2	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)