

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: P558676

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-82-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558676
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-35-UNV-82-86-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

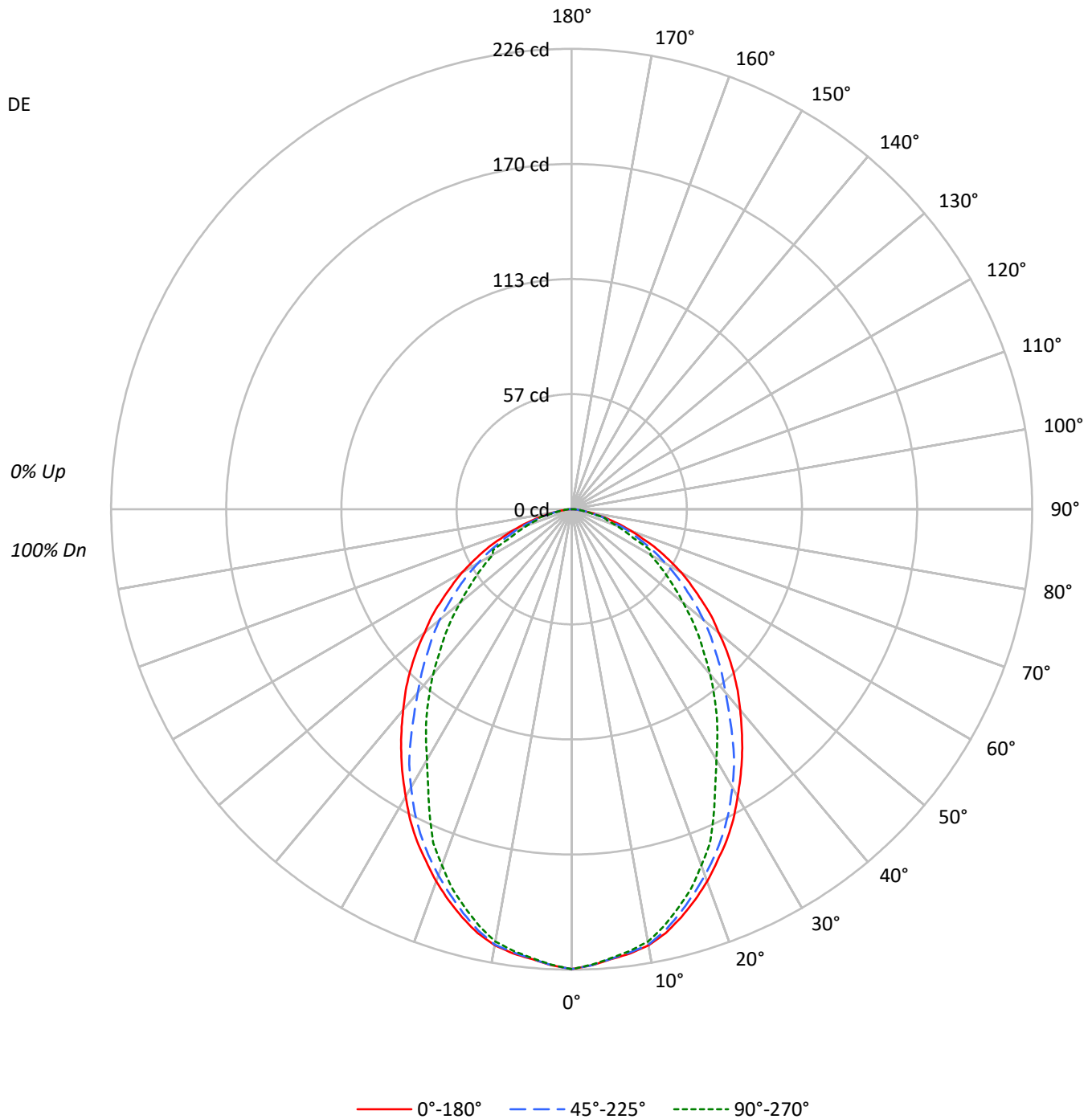
Lumens per Lamp: N/A
Luminaire Lumens: 443.0 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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	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	47	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°	2429	2429	2429
5°	2395	2393	2390
10°	2375	2372	2355
15°	2311	2288	2255
20°	2227	2190	2131
25°	2134	2088	1958
30°	2023	1959	1764
35°	1916	1809	1632
40°	1807	1650	1485
45°	1703	1525	1343
50°	1577	1415	1197
55°	1458	1282	1072
60°	1337	1145	960
65°	1177	1004	851
70°	969	878	724
75°	769	674	707
80°	514	483	453
85°	321	383	457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1703 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.0	4.7
10°-20°	57.6	13.0
20°-30°	79.8	18.0
30°-40°	85.1	19.2
40°-50°	77.6	17.5
50°-60°	60.8	13.7
60°-70°	39.6	8.9
70°-80°	17.6	4.0
80°-90°	3.8	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°	158.5	35.8
0°-40°	243.6	55.0
0°-60°	382.0	86.2
0°-90°	443.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	443.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	226	226	226	226	226	
5°	222	222	222	221	221	21
15°	207	207	205	203	202	58
25°	180	179	176	170	165	83
35°	146	145	138	127	124	91
45°	112	110	100	92	88	86
55°	78	75	68	60	57	70
65°	46	44	39	40	33	45
75°	18	17	16	15	17	20
85°	3	3	3	3	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	225.7	225.7	225.7	225.7	225.7
2.5°	224.1	224.1	224.1	223.8	223.8
5°	221.7	221.5	221.5	221.2	221.2
7.5°	219.9	219.7	219.4	219.1	218.6
10°	217.3	217.3	217.0	215.7	215.5
12.5°	213.1	212.9	211.8	210.0	209.5
15°	207.4	207.4	205.3	203.2	202.4
17.5°	201.1	200.9	198.3	196.2	195.1
20°	194.4	193.8	191.2	187.8	186.0
22.5°	186.8	186.8	183.7	179.2	177.4
25°	179.7	178.7	175.8	169.6	164.9
27.5°	171.7	170.1	167.0	158.1	152.6
30°	162.8	162.0	157.6	146.1	141.9
32.5°	154.4	153.1	148.4	136.4	133.0
35°	145.8	144.8	137.7	127.3	124.2
37.5°	137.2	135.9	127.0	118.7	114.8
40°	128.6	127.0	117.4	109.8	105.7
42.5°	120.5	118.4	109.0	101.0	96.3
45°	111.9	109.6	100.2	91.8	88.2
47.5°	103.3	101.2	92.6	84.0	79.8
50°	94.2	92.4	84.5	75.9	71.5
52.5°	86.6	83.7	76.2	67.6	63.9
55°	77.7	75.4	68.3	60.3	57.1
57.5°	69.7	67.3	60.8	53.2	50.6
60°	62.1	58.7	53.2	46.7	44.6
62.5°	53.7	51.1	46.4	41.0	43.6
65°	46.2	43.6	39.4	40.2	33.4
67.5°	37.8	36.5	32.9	29.2	28.2
70°	30.8	29.2	27.9	24.0	23.0
72.5°	24.5	23.0	21.1	19.0	18.3
75°	18.5	17.2	16.2	15.4	17.0
77.5°	12.8	12.3	11.5	10.7	10.4
80°	8.3	8.1	7.8	7.6	7.3
82.5°	5.0	5.0	5.0	5.0	5.0
85°	2.6	2.9	3.1	3.4	3.7
87.5°	1.6	1.6	1.8	2.1	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)