

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: P559367

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559367
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-LD4-2LO-50-UNV-81-87-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

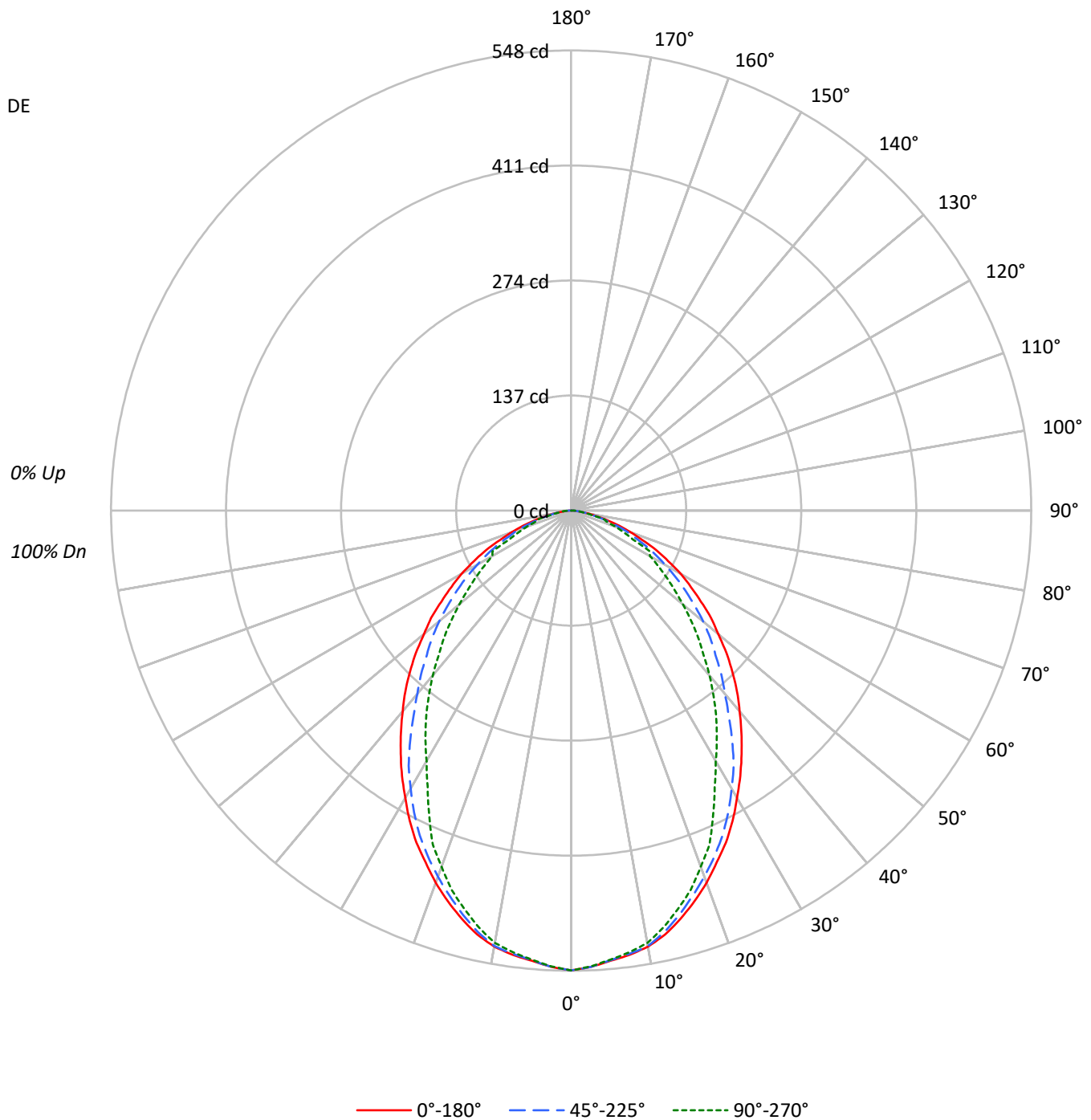
Lumens per Lamp: N/A
Luminaire Lumens: 1075.0 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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°	5894	5894	5894
5°	5814	5808	5800
10°	5763	5757	5715
15°	5609	5552	5474
20°	5402	5315	5171
25°	5181	5068	4752
30°	4909	4753	4281
35°	4650	4393	3959
40°	4385	4003	3603
45°	4134	3701	3258
50°	3826	3435	2905
55°	3539	3113	2601
60°	3244	2779	2331
65°	2855	2435	2063
70°	2351	2131	1753
75°	1867	1630	1709
80°	1258	1178	1097
85°	778	939	1099

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4134 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.0	4.7
10°-20°	139.9	13.0
20°-30°	193.7	18.0
30°-40°	206.5	19.2
40°-50°	188.4	17.5
50°-60°	147.6	13.7
60°-70°	96.2	8.9
70°-80°	42.6	4.0
80°-90°	9.1	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°	384.5	35.8
0°-40°	591.0	55.0
0°-60°	927.0	86.2
0°-90°	1075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1075.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	548	548	548	548	548	
5°	538	538	538	537	537	51
15°	503	503	498	493	491	141
25°	436	434	427	412	400	200
35°	354	351	334	309	301	221
45°	272	266	243	223	214	209
55°	189	183	166	146	139	169
65°	112	106	96	98	81	110
75°	45	42	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	547.6	547.6	547.6	547.6	547.6
2.5°	543.8	543.8	543.8	543.2	543.2
5°	538.1	537.5	537.5	536.8	536.8
7.5°	533.7	533.0	532.4	531.8	530.5
10°	527.3	527.3	526.7	523.5	522.9
12.5°	517.2	516.6	514.0	509.6	508.3
15°	503.3	503.3	498.2	493.1	491.2
17.5°	488.1	487.5	481.1	476.1	473.5
20°	471.6	470.4	464.0	455.8	451.4
22.5°	453.3	453.3	445.7	434.9	430.5
25°	436.2	433.6	426.7	411.5	400.1
27.5°	416.5	412.8	405.2	383.6	370.3
30°	395.0	393.1	382.4	354.5	344.4
32.5°	374.8	371.6	360.2	331.1	322.9
35°	353.9	351.3	334.3	308.9	301.3
37.5°	333.0	329.8	308.3	288.0	278.5
40°	312.1	308.3	284.9	266.5	256.4
42.5°	292.5	287.4	264.6	245.0	233.6
45°	271.6	265.9	243.1	222.8	214.0
47.5°	250.7	245.6	224.7	203.8	193.7
50°	228.5	224.1	205.1	184.2	173.5
52.5°	210.2	203.2	184.9	164.0	155.1
55°	188.6	183.0	165.9	146.2	138.6
57.5°	169.0	163.3	147.5	129.1	122.8
60°	150.7	142.4	129.1	113.3	108.3
62.5°	130.4	124.1	112.7	99.4	105.7
65°	112.1	105.7	95.6	97.5	81.0
67.5°	91.8	88.6	79.8	70.9	68.4
70°	74.7	70.9	67.7	58.2	55.7
72.5°	59.5	55.7	51.3	46.2	44.3
75°	44.9	41.8	39.2	37.4	41.1
77.5°	31.0	29.8	27.9	26.0	25.3
80°	20.3	19.6	19.0	18.4	17.7
82.5°	12.0	12.0	12.0	12.0	12.0
85°	6.3	7.0	7.6	8.2	8.9
87.5°	3.8	3.8	4.4	5.1	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)