

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: P559168

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-81-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559168
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-LD4-2HI-50-UNV-81-84-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1639.0 lumens
Efficiency: N/A
Efficacy: 75.9 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

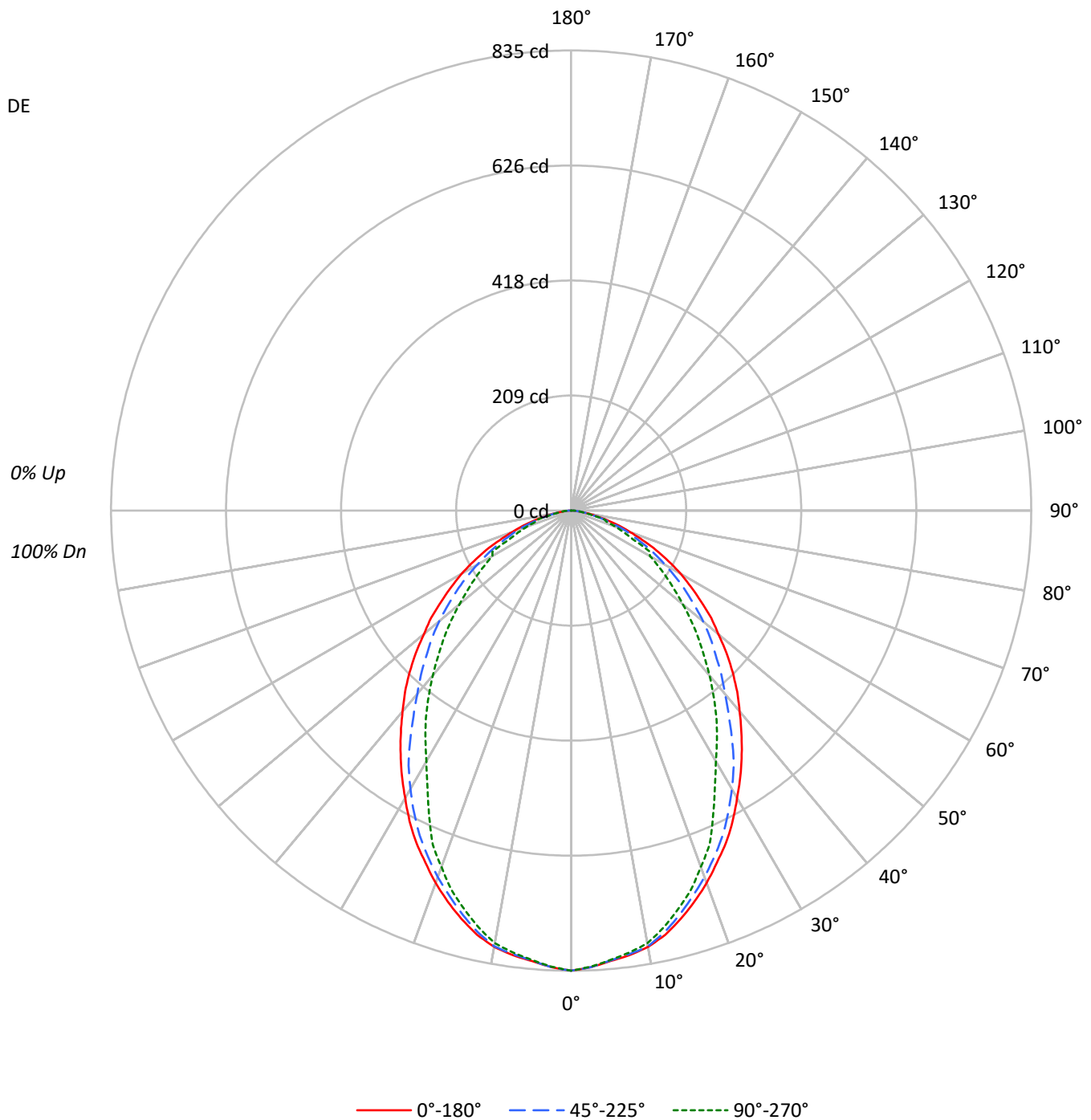
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8987	8987	8987
5°	8864	8854	8844
10°	8788	8777	8713
15°	8551	8465	8347
20°	8237	8104	7883
25°	7898	7726	7245
30°	7486	7246	6527
35°	7089	6696	6037
40°	6686	6102	5493
45°	6304	5641	4966
50°	5834	5236	4429
55°	5397	4746	3967
60°	4945	4239	3552
65°	4350	3711	3145
70°	3585	3251	2672
75°	2849	2487	2608
80°	1915	1798	1674
85°	1198	1433	1667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6304 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.7	4.7
10°-20°	213.3	13.0
20°-30°	295.3	18.0
30°-40°	314.9	19.2
40°-50°	287.2	17.5
50°-60°	225.0	13.7
60°-70°	146.7	8.9
70°-80°	65.0	4.0
80°-90°	13.9	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°	586.3	35.8
0°-40°	901.1	55.0
0°-60°	1413.4	86.2
0°-90°	1639.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1639.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	835	835	835	835	835	
5°	820	819	819	818	818	78
15°	767	767	760	752	749	216
25°	665	661	650	627	610	305
35°	540	536	510	471	459	337
45°	414	405	371	340	326	319
55°	288	279	253	223	211	258
65°	171	161	146	149	124	168
75°	68	64	60	57	63	73
85°	10	11	12	12	14	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	834.9	834.9	834.9	834.9	834.9
2.5°	829.1	829.1	829.1	828.1	828.1
5°	820.4	819.4	819.4	818.5	818.5
7.5°	813.7	812.7	811.7	810.8	808.8
10°	804.0	804.0	803.0	798.2	797.2
12.5°	788.6	787.6	783.7	777.0	775.0
15°	767.3	767.3	759.6	751.9	749.0
17.5°	744.2	743.2	733.5	725.8	722.0
20°	719.1	717.1	707.5	694.9	688.2
22.5°	691.1	691.1	679.5	663.1	656.3
25°	665.0	661.2	650.5	627.4	610.0
27.5°	635.1	629.3	617.7	584.9	564.6
30°	602.3	599.4	583.0	540.5	525.1
32.5°	571.4	566.6	549.2	504.8	492.2
35°	539.5	535.7	509.6	471.0	459.4
37.5°	507.7	502.9	470.0	439.2	424.7
40°	475.8	470.0	434.3	406.3	390.9
42.5°	445.9	438.2	403.4	373.5	356.2
45°	414.1	405.4	370.6	339.7	326.2
47.5°	382.2	374.5	342.6	310.8	295.3
50°	348.4	341.7	312.7	280.9	264.5
52.5°	320.4	309.8	281.8	250.0	236.5
55°	287.6	278.9	252.9	223.0	211.4
57.5°	257.7	249.0	224.9	196.9	187.2
60°	229.7	217.2	196.9	172.8	165.0
62.5°	198.8	189.2	171.8	151.5	161.2
65°	170.8	161.2	145.7	148.6	123.5
67.5°	140.0	135.1	121.6	108.1	104.2
70°	113.9	108.1	103.3	88.8	84.9
72.5°	90.7	84.9	78.2	70.5	67.6
75°	68.5	63.7	59.8	56.9	62.7
77.5°	47.3	45.4	42.5	39.6	38.6
80°	30.9	29.9	29.0	28.0	27.0
82.5°	18.3	18.3	18.3	18.3	18.3
85°	9.7	10.6	11.6	12.5	13.5
87.5°	5.8	5.8	6.8	7.7	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)