

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: P559040

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-81-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559040
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1534.0 lumens
Efficiency: N/A
Efficacy: 71.0 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

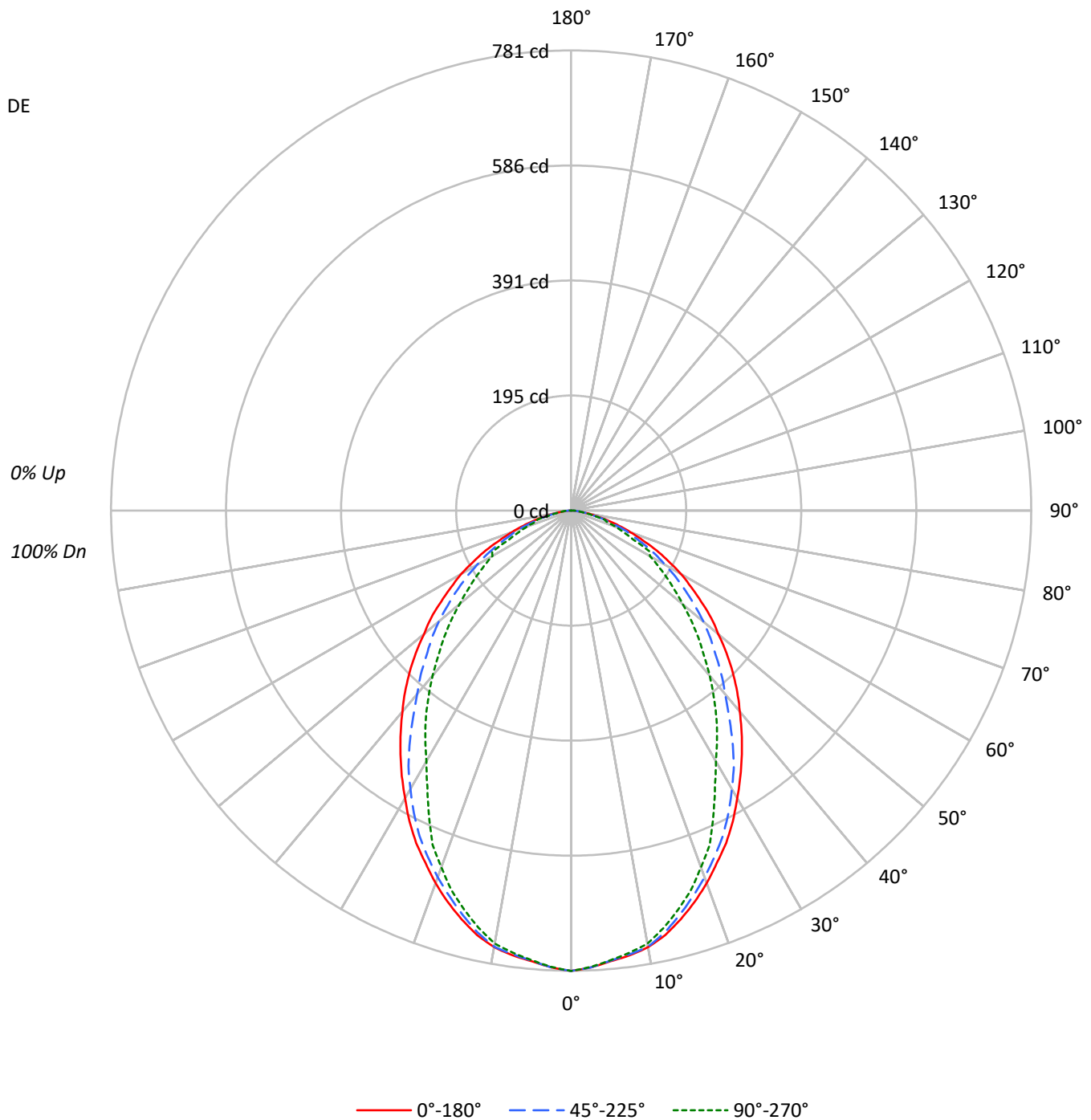
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8411	8411	8411
5°	8296	8286	8277
10°	8225	8215	8156
15°	8003	7922	7812
20°	7709	7585	7378
25°	7392	7232	6780
30°	7006	6781	6108
35°	6636	6268	5650
40°	6258	5712	5141
45°	5899	5281	4647
50°	5461	4901	4145
55°	5052	4442	3712
60°	4628	3968	3326
65°	4073	3474	2944
70°	3355	3043	2502
75°	2666	2329	2441
80°	1791	1680	1568
85°	1112	1334	1556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5899 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	4.7
10°-20°	199.6	13.0
20°-30°	276.4	18.0
30°-40°	294.7	19.2
40°-50°	268.8	17.5
50°-60°	210.6	13.7
60°-70°	137.3	8.9
70°-80°	60.8	4.0
80°-90°	13.0	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°	548.7	35.8
0°-40°	843.4	55.0
0°-60°	1322.9	86.2
0°-90°	1534.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1534.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	781	781	781	781	781	
5°	768	767	767	766	766	73
15°	718	718	711	704	701	202
25°	622	619	609	587	571	286
35°	505	501	477	441	430	316
45°	388	379	347	318	305	298
55°	269	261	237	209	198	241
65°	160	151	136	139	116	158
75°	64	60	56	53	59	69
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	781.4	781.4	781.4	781.4	781.4
2.5°	776.0	776.0	776.0	775.1	775.1
5°	767.8	766.9	766.9	766.0	766.0
7.5°	761.5	760.6	759.7	758.8	757.0
10°	752.5	752.5	751.6	747.1	746.2
12.5°	738.0	737.1	733.5	727.2	725.4
15°	718.2	718.2	710.9	703.7	701.0
17.5°	696.5	695.6	686.5	679.3	675.7
20°	673.0	671.2	662.2	650.4	644.1
22.5°	646.8	646.8	636.0	620.6	614.3
25°	622.4	618.8	608.9	587.2	570.9
27.5°	594.4	589.0	578.1	547.4	528.5
30°	563.7	561.0	545.6	505.9	491.4
32.5°	534.8	530.3	514.0	472.5	460.7
35°	505.0	501.4	477.0	440.8	430.0
37.5°	475.2	470.6	439.9	411.0	397.5
40°	445.4	439.9	406.5	380.3	365.9
42.5°	417.3	410.1	377.6	349.6	333.3
45°	387.5	379.4	346.9	318.0	305.3
47.5°	357.7	350.5	320.7	290.9	276.4
50°	326.1	319.8	292.7	262.9	247.5
52.5°	299.9	290.0	263.8	234.0	221.3
55°	269.2	261.1	236.7	208.7	197.8
57.5°	241.2	233.1	210.5	184.3	175.3
60°	215.0	203.3	184.3	161.7	154.5
62.5°	186.1	177.1	160.8	141.8	150.9
65°	159.9	150.9	136.4	139.1	115.6
67.5°	131.0	126.5	113.8	101.2	97.6
70°	106.6	101.2	96.7	83.1	79.5
72.5°	84.9	79.5	73.2	65.9	63.2
75°	64.1	59.6	56.0	53.3	58.7
77.5°	44.3	42.5	39.7	37.0	36.1
80°	28.9	28.0	27.1	26.2	25.3
82.5°	17.2	17.2	17.2	17.2	17.2
85°	9.0	9.9	10.8	11.7	12.6
87.5°	5.4	5.4	6.3	7.2	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)