

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: P559094

Luminaire Tested: FSR-12-1-LD4-2HI-40-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559094
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-40-UNV-80-87-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1536.0 lumens
Efficiency: N/A
Efficacy: 71.1 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

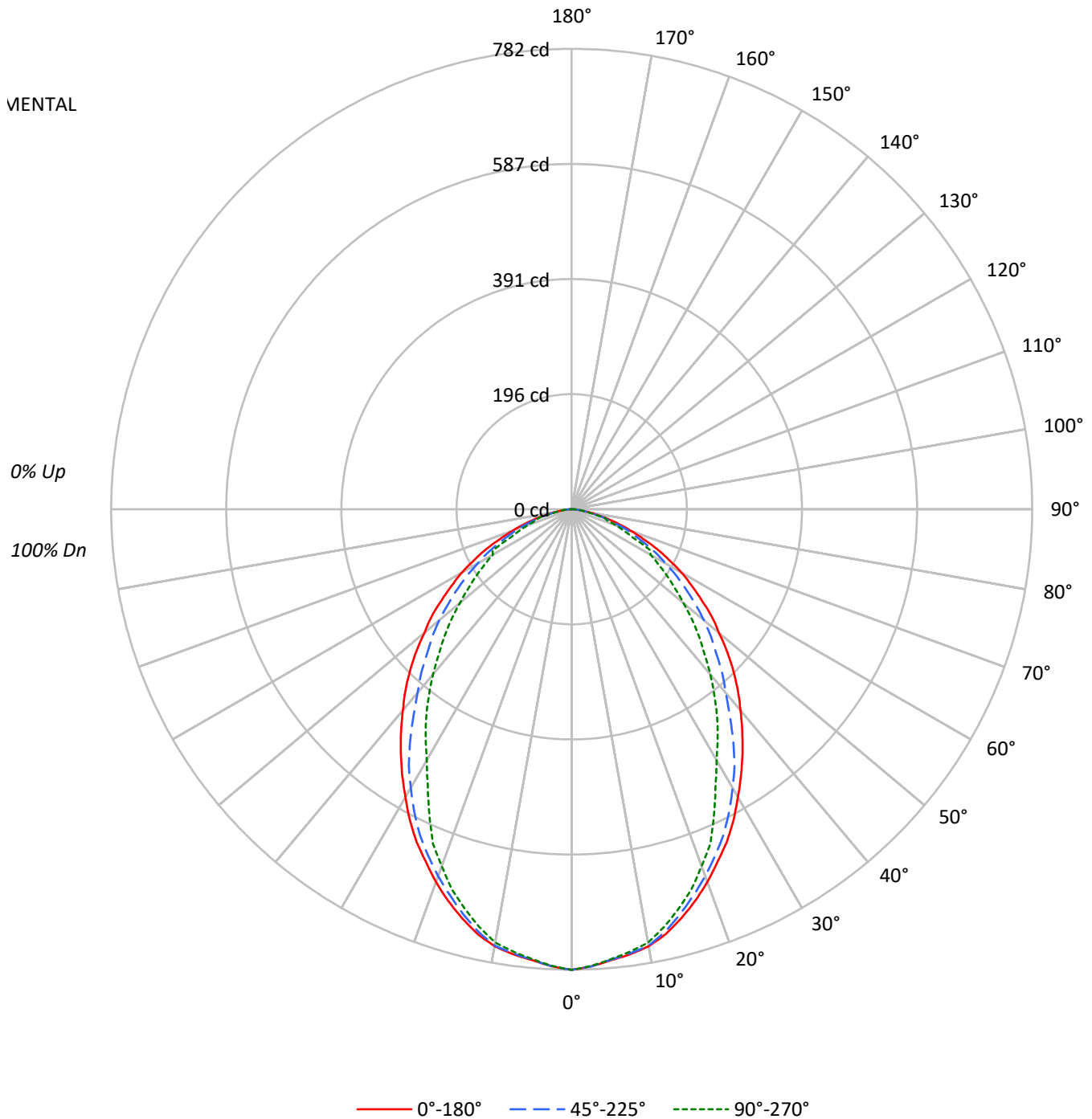
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8422	8422	8422
5°	8307	8297	8287
10°	8236	8226	8166
15°	8013	7933	7822
20°	7719	7594	7387
25°	7402	7241	6790
30°	7015	6790	6116
35°	6644	6276	5658
40°	6265	5719	5147
45°	5906	5287	4654
50°	5467	4908	4150
55°	5058	4448	3718
60°	4635	3972	3330
65°	4078	3479	2949
70°	3358	3046	2505
75°	2670	2333	2445
80°	1791	1680	1568
85°	1112	1346	1568

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5906 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.8	4.7
10°-20°	199.9	13.0
20°-30°	276.7	18.0
30°-40°	295.1	19.2
40°-50°	269.2	17.5
50°-60°	210.9	13.7
60°-70°	137.5	8.9
70°-80°	60.9	4.0
80°-90°	13.1	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°	549.4	35.8
0°-40°	844.5	55.0
0°-60°	1324.6	86.2
0°-90°	1536.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1536.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	782	782	782	782	782	
5°	769	768	768	767	767	73
15°	719	719	712	705	702	202
25°	623	620	610	588	572	286
35°	506	502	478	441	431	316
45°	388	380	347	318	306	299
55°	270	261	237	209	198	242
65°	160	151	137	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°	782.4	782.4	782.4	782.4	782.4
2.5°	777.0	777.0	777.0	776.1	776.1
5°	768.8	767.9	767.9	767.0	767.0
7.5°	762.5	761.6	760.7	759.8	758.0
10°	753.5	753.5	752.6	748.0	747.1
12.5°	739.0	738.1	734.5	728.1	726.3
15°	719.1	719.1	711.9	704.6	701.9
17.5°	697.4	696.5	687.4	680.2	676.6
20°	673.9	672.1	663.0	651.3	644.9
22.5°	647.6	647.6	636.8	621.4	615.1
25°	623.2	619.6	609.7	587.9	571.7
27.5°	595.2	589.8	578.9	548.1	529.1
30°	564.4	561.7	546.3	506.5	492.1
32.5°	535.5	531.0	514.7	473.1	461.3
35°	505.6	502.0	477.6	441.4	430.6
37.5°	475.8	471.3	440.5	411.6	398.0
40°	445.9	440.5	407.0	380.8	366.3
42.5°	417.9	410.7	378.1	350.1	333.8
45°	388.0	379.9	347.3	318.4	305.7
47.5°	358.2	351.0	321.1	291.3	276.8
50°	326.5	320.2	293.1	263.2	247.8
52.5°	300.3	290.4	264.1	234.3	221.6
55°	269.5	261.4	237.0	208.9	198.1
57.5°	241.5	233.4	210.8	184.5	175.5
60°	215.3	203.5	184.5	161.9	154.7
62.5°	186.3	177.3	161.0	142.0	151.1
65°	160.1	151.1	136.6	139.3	115.8
67.5°	131.2	126.6	114.0	101.3	97.7
70°	106.7	101.3	96.8	83.2	79.6
72.5°	85.0	79.6	73.3	66.0	63.3
75°	64.2	59.7	56.1	53.4	58.8
77.5°	44.3	42.5	39.8	37.1	36.2
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	10.9	11.8	12.7
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)