

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: P559477

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-80-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559477
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-LD4-2STD-40-UNV-80-86-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1540.0 lumens
Efficiency: N/A
Efficacy: 92.8 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

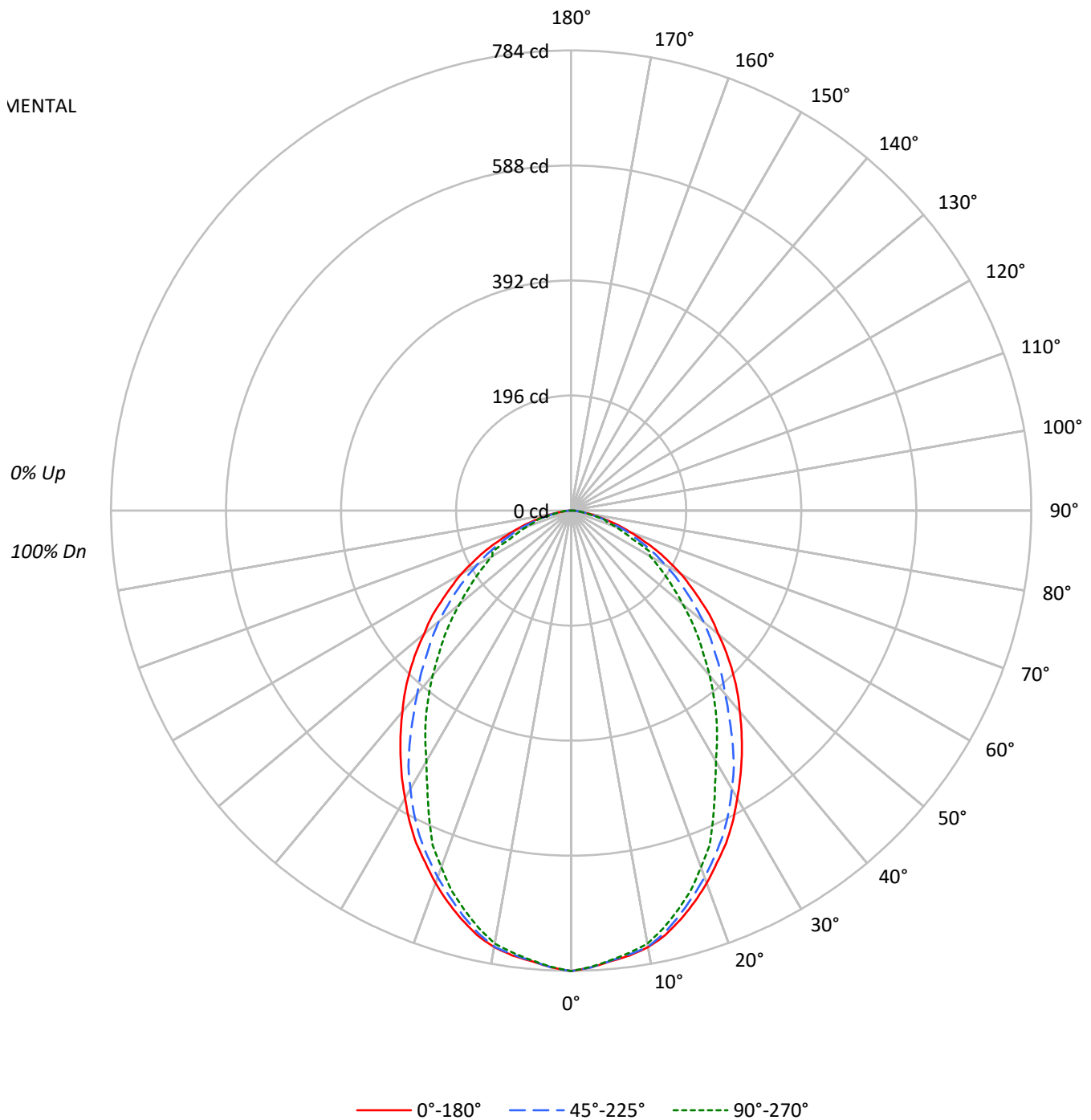
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8444	8444	8444
5°	8330	8319	8309
10°	8256	8247	8188
15°	8035	7953	7842
20°	7739	7614	7407
25°	7421	7259	6808
30°	7034	6809	6131
35°	6661	6292	5673
40°	6282	5734	5161
45°	5923	5300	4666
50°	5483	4920	4161
55°	5073	4459	3727
60°	4646	3983	3339
65°	4088	3487	2957
70°	3367	3053	2511
75°	2678	2337	2450
80°	1798	1686	1574
85°	1124	1346	1568

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5923 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.0	4.7
10°-20°	200.4	13.0
20°-30°	277.4	18.0
30°-40°	295.8	19.2
40°-50°	269.9	17.5
50°-60°	211.4	13.7
60°-70°	137.8	8.9
70°-80°	61.1	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°	550.9	35.8
0°-40°	846.7	55.0
0°-60°	1328.0	86.2
0°-90°	1540.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1540.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	784	784	784	784	784	
5°	771	770	770	769	769	73
15°	721	721	714	706	704	203
25°	625	621	611	590	573	287
35°	507	503	479	443	432	317
45°	389	381	348	319	306	300
55°	270	262	238	210	199	242
65°	160	151	137	140	116	158
75°	64	60	56	54	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°	784.5	784.5	784.5	784.5	784.5
2.5°	779.0	779.0	779.0	778.1	778.1
5°	770.9	769.9	769.9	769.0	769.0
7.5°	764.5	763.6	762.7	761.8	760.0
10°	755.4	755.4	754.5	750.0	749.1
12.5°	740.9	740.0	736.4	730.0	728.2
15°	721.0	721.0	713.7	706.5	703.7
17.5°	699.2	698.3	689.2	682.0	678.3
20°	675.6	673.8	664.7	653.0	646.6
22.5°	649.3	649.3	638.4	623.0	616.7
25°	624.8	621.2	611.2	589.5	573.2
27.5°	596.7	591.3	580.4	549.6	530.5
30°	565.9	563.2	547.8	507.9	493.3
32.5°	536.9	532.3	516.0	474.3	462.5
35°	506.9	503.3	478.8	442.6	431.7
37.5°	477.0	472.5	441.7	412.6	399.0
40°	447.1	441.7	408.1	381.8	367.3
42.5°	419.0	411.7	379.1	351.0	334.6
45°	389.1	380.9	348.2	319.2	306.5
47.5°	359.1	351.9	321.9	292.0	277.5
50°	327.4	321.0	293.8	263.9	248.5
52.5°	301.1	291.1	264.8	234.9	222.2
55°	270.3	262.1	237.6	209.5	198.6
57.5°	242.1	234.0	211.3	185.0	175.9
60°	215.8	204.0	185.0	162.3	155.1
62.5°	186.8	177.7	161.4	142.4	151.4
65°	160.5	151.4	136.9	139.7	116.1
67.5°	131.5	127.0	114.3	101.6	97.9
70°	107.0	101.6	97.0	83.4	79.8
72.5°	85.2	79.8	73.5	66.2	63.5
75°	64.4	59.9	56.2	53.5	58.9
77.5°	44.4	42.6	39.9	37.2	36.3
80°	29.0	28.1	27.2	26.3	25.4
82.5°	17.2	17.2	17.2	17.2	17.2
85°	9.1	10.0	10.9	11.8	12.7
87.5°	5.4	5.4	6.3	7.3	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)