

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: P560055

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560055
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-12-2-LD4-1STD-40-UNV-80-87-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1445.0 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

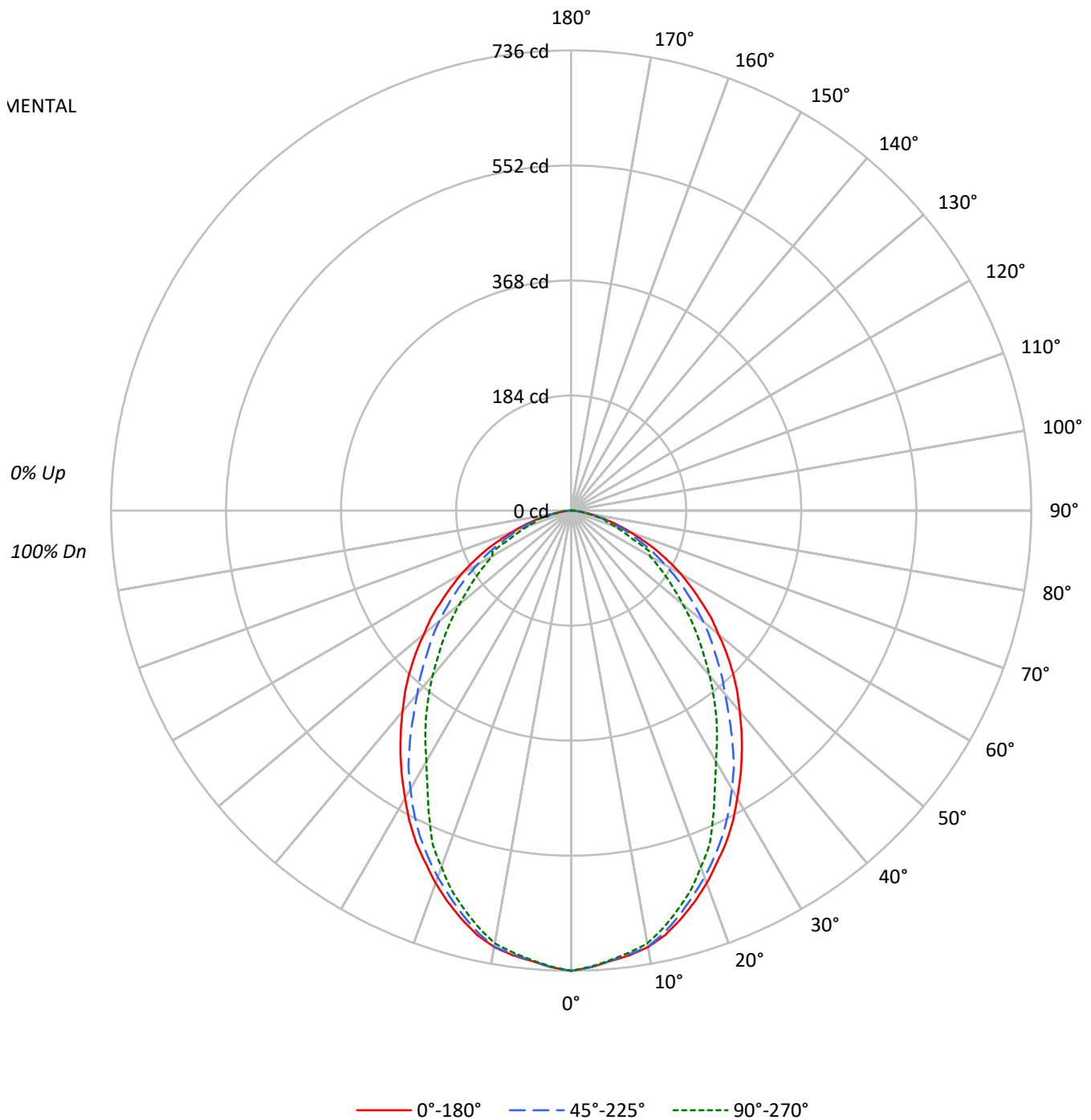
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3962	3962	3962
5°	3908	3903	3898
10°	3874	3869	3841
15°	3769	3731	3679
20°	3631	3572	3475
25°	3482	3406	3194
30°	3300	3194	2877
35°	3125	2952	2661
40°	2947	2690	2421
45°	2779	2487	2189
50°	2572	2308	1953
55°	2380	2092	1749
60°	2180	1869	1566
65°	1918	1636	1387
70°	1580	1434	1179
75°	1256	1098	1150
80°	843	790	738
85°	525	630	735

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2779 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	4.7
10°-20°	188.0	13.0
20°-30°	260.3	18.0
30°-40°	277.6	19.2
40°-50°	253.2	17.5
50°-60°	198.4	13.7
60°-70°	129.3	8.9
70°-80°	57.3	4.0
80°-90°	12.3	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°	516.9	35.8
0°-40°	794.5	55.0
0°-60°	1246.1	86.2
0°-90°	1445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1445.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	723	722	722	722	722	69
15°	676	676	670	663	660	190
25°	586	583	574	553	538	269
35°	476	472	449	415	405	297
45°	365	357	327	300	288	281
55°	254	246	223	197	186	227
65°	151	142	128	131	109	148
75°	60	56	53	50	55	65
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	736.1	736.1	736.1	736.1	736.1
2.5°	731.0	731.0	731.0	730.1	730.1
5°	723.3	722.4	722.4	721.6	721.6
7.5°	717.3	716.5	715.6	714.8	713.1
10°	708.8	708.8	708.0	703.7	702.9
12.5°	695.2	694.4	691.0	685.0	683.3
15°	676.5	676.5	669.7	662.9	660.3
17.5°	656.1	655.2	646.7	639.9	636.5
20°	634.0	632.2	623.7	612.7	606.7
22.5°	609.3	609.3	599.1	584.6	578.6
25°	586.3	582.9	573.5	553.1	537.8
27.5°	559.9	554.8	544.6	515.7	497.8
30°	531.0	528.4	514.0	476.5	462.9
32.5°	503.8	499.5	484.2	445.0	434.0
35°	475.7	472.3	449.3	415.3	405.0
37.5°	447.6	443.3	414.4	387.2	374.4
40°	419.5	414.4	382.9	358.2	344.6
42.5°	393.1	386.3	355.7	329.3	314.0
45°	365.1	357.4	326.8	299.5	287.6
47.5°	337.0	330.2	302.1	274.0	260.4
50°	307.2	301.2	275.7	247.6	233.2
52.5°	282.5	273.2	248.5	220.4	208.5
55°	253.6	245.9	222.9	196.6	186.4
57.5°	227.2	219.5	198.3	173.6	165.1
60°	202.5	191.5	173.6	152.3	145.5
62.5°	175.3	166.8	151.5	133.6	142.1
65°	150.6	142.1	128.5	131.0	108.9
67.5°	123.4	119.1	107.2	95.3	91.9
70°	100.4	95.3	91.1	78.3	74.9
72.5°	80.0	74.9	68.9	62.1	59.6
75°	60.4	56.2	52.8	50.2	55.3
77.5°	41.7	40.0	37.4	34.9	34.0
80°	27.2	26.4	25.5	24.7	23.8
82.5°	16.2	16.2	16.2	16.2	16.2
85°	8.5	9.4	10.2	11.1	11.9
87.5°	5.1	5.1	6.0	6.8	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)