

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: P560444

Luminaire Tested: FSR-12-2-LD4-2LO-40-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560444
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-LD4-2LO-40-UNV-80-96-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1916.0 lumens
Efficiency: N/A
Efficacy: 81.9 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

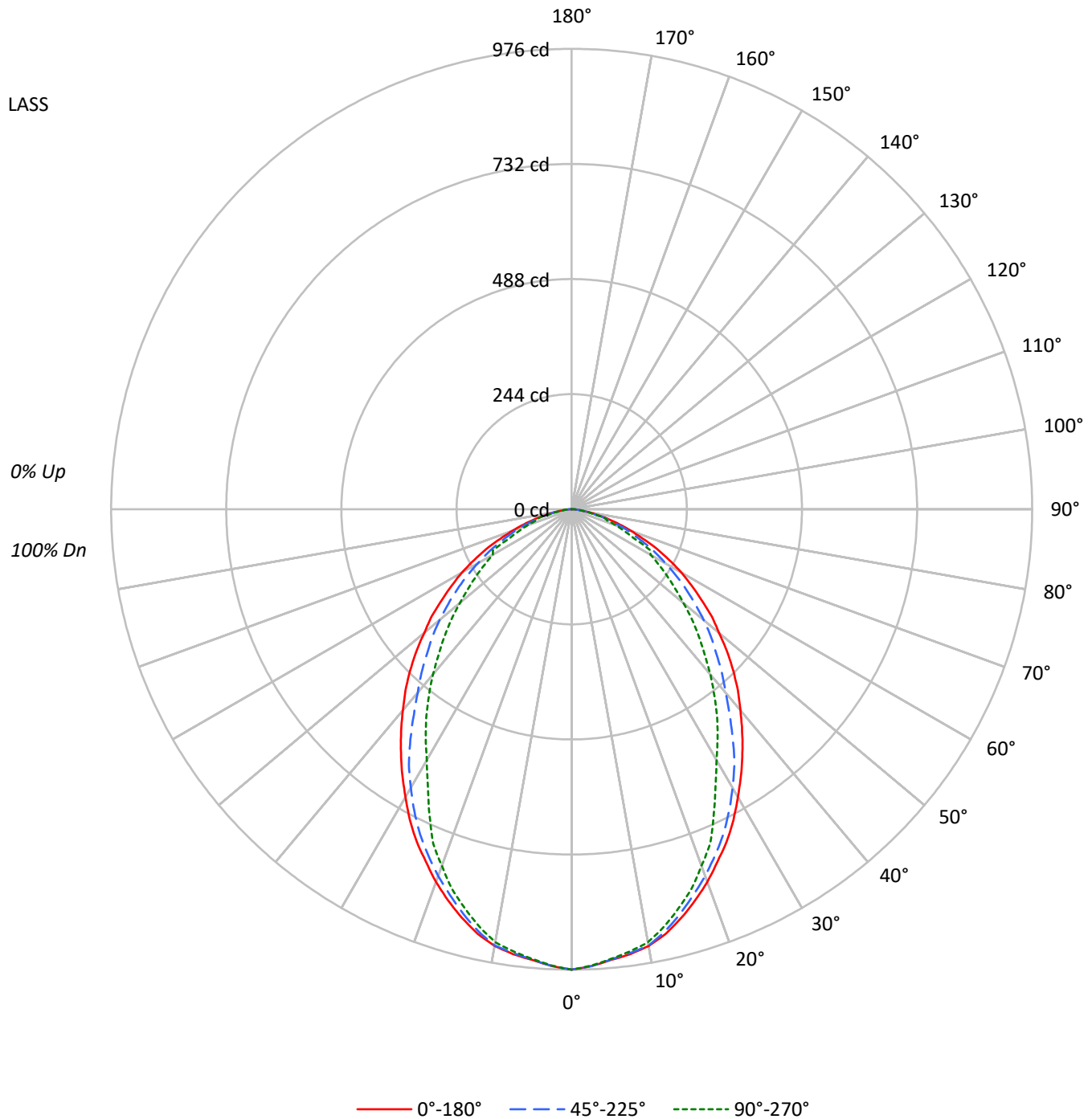
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5253	5253	5253
5°	5182	5175	5169
10°	5137	5131	5093
15°	4998	4948	4879
20°	4814	4737	4608
25°	4616	4516	4235
30°	4376	4235	3814
35°	4144	3914	3529
40°	3908	3567	3211
45°	3684	3298	2903
50°	3410	3061	2589
55°	3155	2774	2319
60°	2890	2478	2076
65°	2543	2170	1839
70°	2094	1899	1563
75°	1666	1456	1524
80°	1119	1048	979
85°	698	834	976

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3684 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.9	4.7
10°-20°	249.3	13.0
20°-30°	345.2	18.0
30°-40°	368.1	19.2
40°-50°	335.8	17.5
50°-60°	263.1	13.7
60°-70°	171.5	8.9
70°-80°	76.0	4.0
80°-90°	16.3	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°	685.4	35.8
0°-40°	1053.4	55.0
0°-60°	1652.3	86.2
0°-90°	1916.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1916.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	976	976	976	976	976	
5°	959	958	958	957	957	91
15°	897	897	888	879	876	252
25°	777	773	760	733	713	357
35°	631	626	596	551	537	394
45°	484	474	433	397	381	373
55°	336	326	296	261	247	302
65°	200	188	170	174	144	197
75°	80	74	70	67	73	86
85°	11	12	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	976.0	976.0	976.0	976.0	976.0
2.5°	969.2	969.2	969.2	968.1	968.1
5°	959.1	957.9	957.9	956.8	956.8
7.5°	951.2	950.0	948.9	947.8	945.5
10°	939.9	939.9	938.8	933.1	932.0
12.5°	921.8	920.7	916.2	908.3	906.0
15°	897.0	897.0	888.0	879.0	875.6
17.5°	869.9	868.8	857.5	848.5	844.0
20°	840.6	838.3	827.0	812.4	804.5
22.5°	807.9	807.9	794.3	775.1	767.2
25°	777.4	772.9	760.5	733.4	713.1
27.5°	742.4	735.7	722.1	683.8	660.1
30°	704.1	700.7	681.5	631.9	613.8
32.5°	668.0	662.3	642.0	590.1	575.4
35°	630.7	626.2	595.7	550.6	537.1
37.5°	593.5	587.8	549.5	513.4	496.5
40°	556.3	549.5	507.7	475.0	457.0
42.5°	521.3	512.3	471.6	436.7	416.3
45°	484.0	473.9	433.3	397.2	381.4
47.5°	446.8	437.8	400.5	363.3	345.3
50°	407.3	399.4	365.6	328.3	309.2
52.5°	374.6	362.2	329.5	292.2	276.4
55°	336.2	326.1	295.6	260.6	247.1
57.5°	301.3	291.1	262.9	230.2	218.9
60°	268.5	253.9	230.2	202.0	192.9
62.5°	232.4	221.1	200.8	177.1	188.4
65°	199.7	188.4	170.4	173.8	144.4
67.5°	163.6	158.0	142.2	126.4	121.9
70°	133.1	126.4	120.7	103.8	99.3
72.5°	106.1	99.3	91.4	82.4	79.0
75°	80.1	74.5	70.0	66.6	73.3
77.5°	55.3	53.0	49.6	46.3	45.1
80°	36.1	35.0	33.8	32.7	31.6
82.5°	21.4	21.4	21.4	21.4	21.4
85°	11.3	12.4	13.5	14.7	15.8
87.5°	6.8	6.8	7.9	9.0	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)