

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: P559486

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559486
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-80-97-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 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: 1276.0 lumens
Efficiency: N/A
Efficacy: 76.9 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

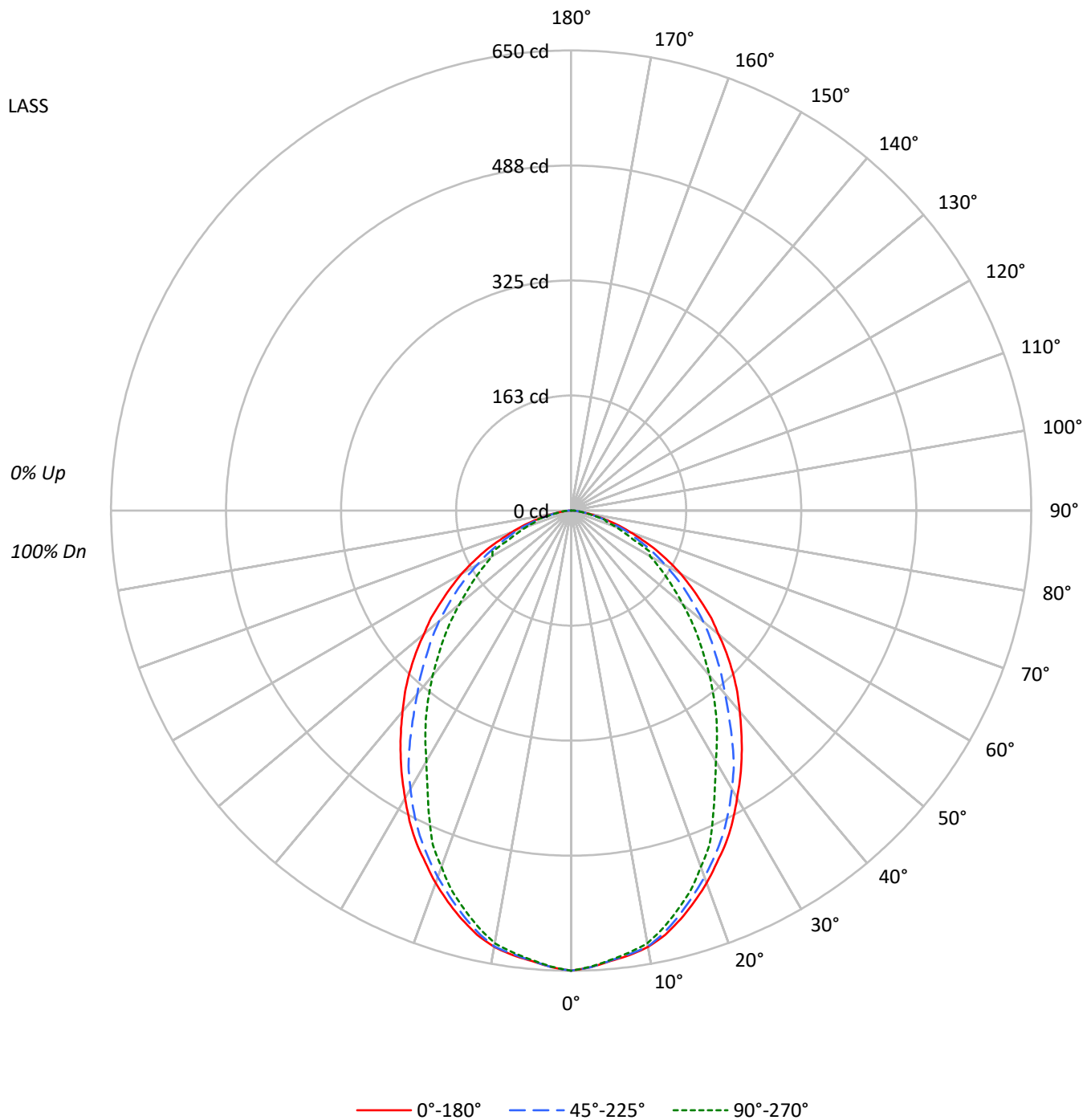
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6997	6997	6997
5°	6901	6894	6885
10°	6841	6833	6784
15°	6657	6590	6498
20°	6412	6309	6137
25°	6149	6016	5640
30°	5828	5642	5081
35°	5519	5213	4700
40°	5205	4751	4276
45°	4908	4392	3867
50°	4543	4078	3448
55°	4202	3695	3089
60°	3849	3300	2766
65°	3387	2891	2450
70°	2792	2530	2080
75°	2221	1938	2030
80°	1488	1395	1302
85°	926	1112	1297

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4908 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.5	4.7
10°-20°	166.1	13.0
20°-30°	229.9	18.0
30°-40°	245.1	19.2
40°-50°	223.6	17.5
50°-60°	175.2	13.7
60°-70°	114.2	8.9
70°-80°	50.6	4.0
80°-90°	10.9	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°	456.4	35.8
0°-40°	701.6	55.0
0°-60°	1100.4	86.2
0°-90°	1276.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1276.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	639	638	638	637	637	61
15°	597	597	591	585	583	168
25°	518	515	506	488	475	238
35°	420	417	397	367	358	263
45°	322	316	288	264	254	248
55°	224	217	197	174	165	201
65°	133	126	114	116	96	131
75°	53	50	47	44	49	57
85°	8	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	650.0	650.0	650.0	650.0	650.0
2.5°	645.5	645.5	645.5	644.7	644.7
5°	638.7	638.0	638.0	637.2	637.2
7.5°	633.4	632.7	631.9	631.2	629.7
10°	625.9	625.9	625.2	621.4	620.7
12.5°	613.9	613.2	610.2	604.9	603.4
15°	597.4	597.4	591.4	585.4	583.1
17.5°	579.3	578.6	571.1	565.1	562.1
20°	559.8	558.3	550.8	541.0	535.8
22.5°	538.0	538.0	529.0	516.2	511.0
25°	517.7	514.7	506.5	488.4	474.9
27.5°	494.4	489.9	480.9	455.4	439.6
30°	468.9	466.6	453.9	420.8	408.8
32.5°	444.8	441.1	427.6	393.0	383.2
35°	420.0	417.0	396.7	366.7	357.7
37.5°	395.2	391.5	365.9	341.9	330.6
40°	370.4	365.9	338.1	316.3	304.3
42.5°	347.2	341.1	314.1	290.8	277.3
45°	322.4	315.6	288.5	264.5	254.0
47.5°	297.6	291.6	266.8	242.0	229.9
50°	271.3	266.0	243.5	218.7	205.9
52.5°	249.5	241.2	219.4	194.6	184.1
55°	223.9	217.2	196.9	173.6	164.6
57.5°	200.6	193.9	175.1	153.3	145.8
60°	178.8	169.1	153.3	134.5	128.5
62.5°	154.8	147.3	133.8	118.0	125.5
65°	133.0	125.5	113.5	115.7	96.2
67.5°	109.0	105.2	94.7	84.2	81.2
70°	88.7	84.2	80.4	69.1	66.1
72.5°	70.6	66.1	60.9	54.9	52.6
75°	53.4	49.6	46.6	44.3	48.8
77.5°	36.8	35.3	33.1	30.8	30.1
80°	24.0	23.3	22.5	21.8	21.0
82.5°	14.3	14.3	14.3	14.3	14.3
85°	7.5	8.3	9.0	9.8	10.5
87.5°	4.5	4.5	5.3	6.0	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)