

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: P559624

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559624
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-LD4-1HI-35-UNV-81-88-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1256.0 lumens
Efficiency: N/A
Efficacy: 58.1 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

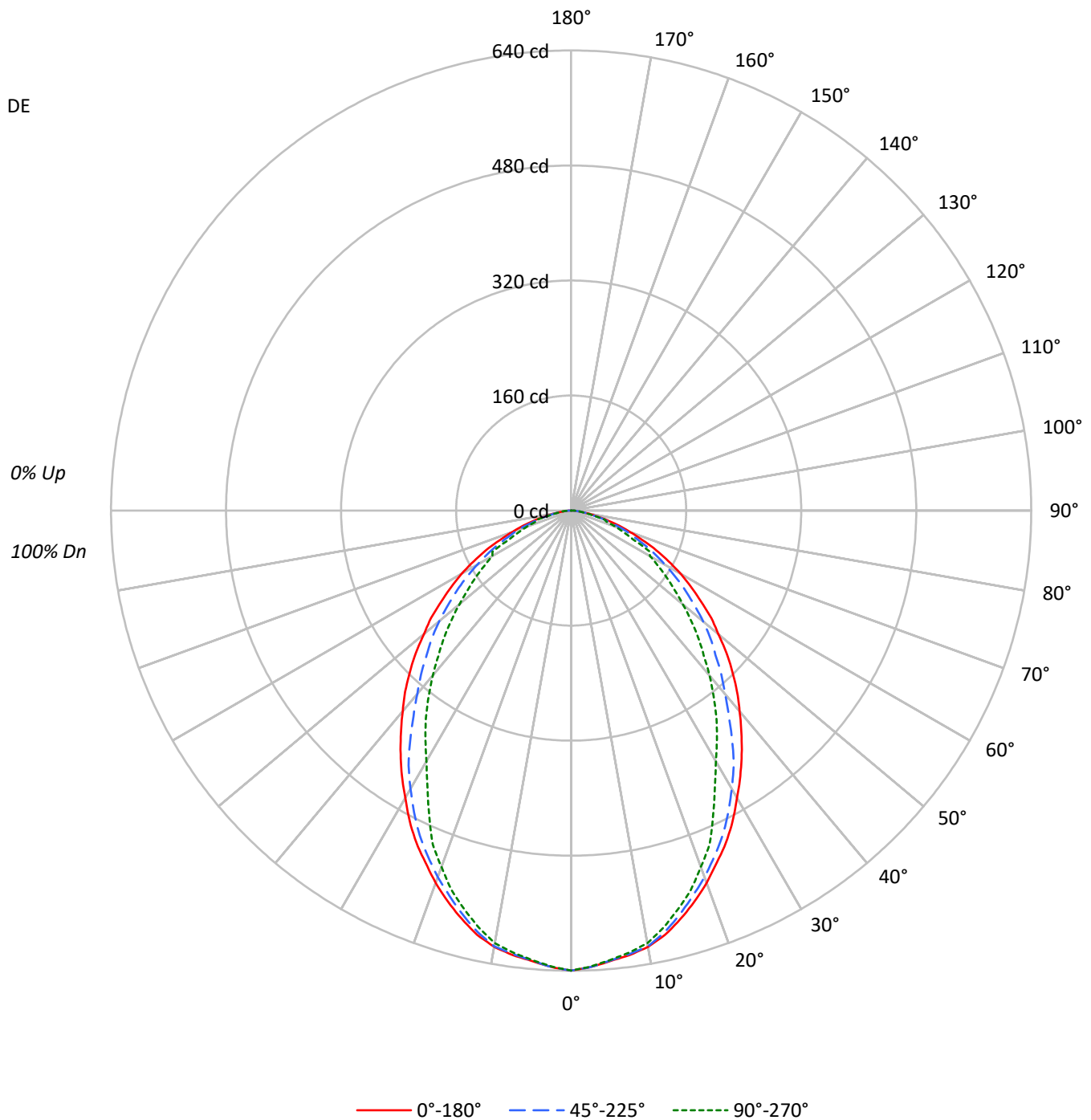
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3443	3443	3443
5°	3397	3393	3388
10°	3367	3363	3339
15°	3276	3243	3198
20°	3156	3105	3021
25°	3026	2960	2776
30°	2868	2776	2501
35°	2717	2566	2313
40°	2562	2338	2105
45°	2415	2162	1903
50°	2236	2006	1697
55°	2068	1818	1520
60°	1894	1624	1362
65°	1667	1422	1206
70°	1374	1245	1024
75°	1092	954	1000
80°	735	688	642
85°	457	550	642

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2415 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.6	4.7
10°-20°	163.4	13.0
20°-30°	226.3	18.0
30°-40°	241.3	19.2
40°-50°	220.1	17.5
50°-60°	172.4	13.7
60°-70°	112.4	8.9
70°-80°	49.8	4.0
80°-90°	10.7	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°	449.3	35.8
0°-40°	690.6	55.0
0°-60°	1083.1	86.2
0°-90°	1256.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1256.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	640	640	640	640	640	
5°	629	628	628	627	627	60
15°	588	588	582	576	574	165
25°	510	507	498	481	468	234
35°	414	410	390	361	352	259
45°	317	311	284	260	250	244
55°	220	214	194	171	162	198
65°	131	124	112	114	95	129
75°	52	49	46	44	48	56
85°	7	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°	639.8	639.8	639.8	639.8	639.8
2.5°	635.4	635.4	635.4	634.6	634.6
5°	628.7	628.0	628.0	627.2	627.2
7.5°	623.5	622.8	622.0	621.3	619.8
10°	616.1	616.1	615.4	611.7	610.9
12.5°	604.3	603.5	600.6	595.4	593.9
15°	588.0	588.0	582.1	576.2	574.0
17.5°	570.3	569.5	562.1	556.2	553.3
20°	551.0	549.6	542.2	532.5	527.4
22.5°	529.6	529.6	520.7	508.1	503.0
25°	509.6	506.7	498.5	480.8	467.5
27.5°	486.7	482.2	473.4	448.2	432.7
30°	461.5	459.3	446.7	414.2	402.4
32.5°	437.9	434.2	420.9	386.8	377.2
35°	413.5	410.5	390.5	360.9	352.1
37.5°	389.1	385.4	360.2	336.5	325.4
40°	364.6	360.2	332.8	311.4	299.6
42.5°	341.7	335.8	309.2	286.2	272.9
45°	317.3	310.6	284.0	260.4	250.0
47.5°	292.9	287.0	262.6	238.2	226.3
50°	267.0	261.8	239.6	215.2	202.7
52.5°	245.6	237.4	216.0	191.6	181.2
55°	220.4	213.8	193.8	170.9	162.0
57.5°	197.5	190.8	172.3	150.9	143.5
60°	176.0	166.4	150.9	132.4	126.5
62.5°	152.4	145.0	131.7	116.1	123.5
65°	130.9	123.5	111.7	113.9	94.7
67.5°	107.2	103.5	93.2	82.8	79.9
70°	87.3	82.8	79.1	68.0	65.1
72.5°	69.5	65.1	59.9	54.0	51.8
75°	52.5	48.8	45.9	43.6	48.1
77.5°	36.2	34.8	32.5	30.3	29.6
80°	23.7	22.9	22.2	21.4	20.7
82.5°	14.1	14.1	14.1	14.1	14.1
85°	7.4	8.1	8.9	9.6	10.4
87.5°	4.4	4.4	5.2	5.9	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)