

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: P559463

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-93-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559463
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-35-UNV-93-87-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1479.0 lumens
Efficiency: N/A
Efficacy: 89.1 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

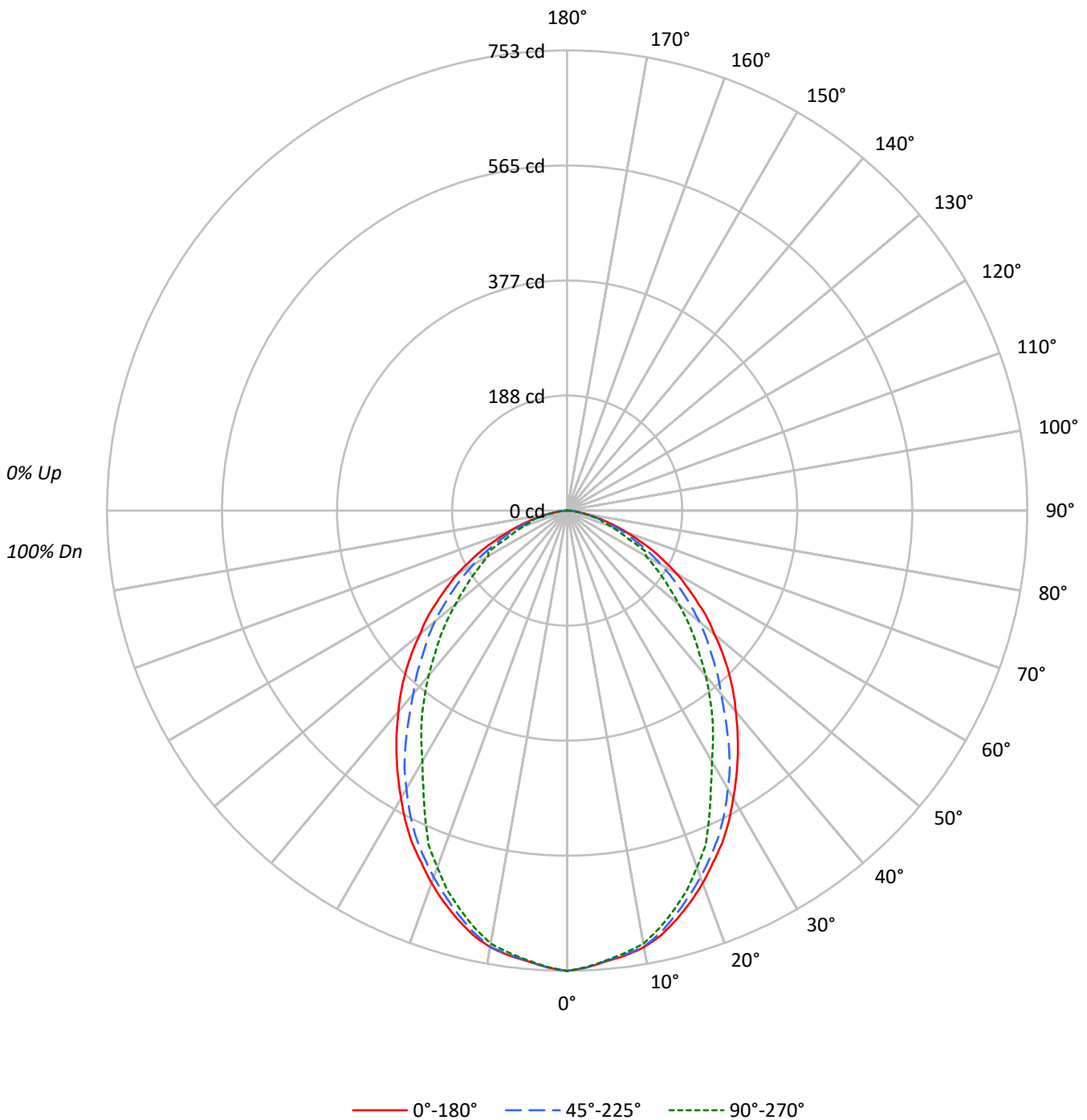
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8110	8110	8110
5°	7999	7989	7981
10°	7930	7920	7863
15°	7716	7638	7532
20°	7433	7313	7113
25°	7127	6972	6537
30°	6755	6539	5889
35°	6398	6043	5448
40°	6034	5507	4956
45°	5687	5090	4481
50°	5265	4726	3996
55°	4870	4282	3579
60°	4463	3825	3205
65°	3927	3349	2840
70°	3235	2933	2411
75°	2570	2246	2354
80°	1729	1618	1512
85°	1074	1297	1507

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5687 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.1	4.7
10°-20°	192.5	13.0
20°-30°	266.5	18.0
30°-40°	284.1	19.2
40°-50°	259.2	17.5
50°-60°	203.1	13.7
60°-70°	132.3	8.9
70°-80°	58.6	4.0
80°-90°	12.6	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°	529.0	35.8
0°-40°	813.2	55.0
0°-60°	1275.4	86.2
0°-90°	1479.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1479.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	753	753	753	753	753	
5°	740	739	739	739	739	70
15°	692	692	685	678	676	195
25°	600	597	587	566	550	276
35°	487	483	460	425	415	304
45°	374	366	334	307	294	288
55°	260	252	228	201	191	233
65°	154	146	132	134	112	152
75°	62	58	54	51	57	66
85°	9	10	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°	753.4	753.4	753.4	753.4	753.4
2.5°	748.2	748.2	748.2	747.3	747.3
5°	740.3	739.4	739.4	738.6	738.6
7.5°	734.2	733.4	732.5	731.6	729.9
10°	725.5	725.5	724.6	720.3	719.4
12.5°	711.6	710.7	707.2	701.1	699.4
15°	692.4	692.4	685.4	678.5	675.9
17.5°	671.5	670.6	661.9	655.0	651.5
20°	648.9	647.1	638.4	627.1	621.0
22.5°	623.6	623.6	613.2	598.4	592.3
25°	600.1	596.6	587.0	566.1	550.4
27.5°	573.1	567.9	557.4	527.8	509.5
30°	543.5	540.9	526.1	487.7	473.8
32.5°	515.6	511.3	495.6	455.5	444.2
35°	486.9	483.4	459.9	425.0	414.6
37.5°	458.1	453.8	424.2	396.3	383.2
40°	429.4	424.2	391.9	366.7	352.7
42.5°	402.4	395.4	364.1	337.1	321.4
45°	373.6	365.8	334.4	306.6	294.4
47.5°	344.9	337.9	309.2	280.5	266.5
50°	314.4	308.3	282.2	253.5	238.6
52.5°	289.2	279.6	254.3	225.6	213.4
55°	259.5	251.7	228.2	201.2	190.7
57.5°	232.5	224.7	202.9	177.7	169.0
60°	207.3	196.0	177.7	155.9	148.9
62.5°	179.4	170.7	155.0	136.7	145.5
65°	154.2	145.5	131.5	134.1	111.5
67.5°	126.3	121.9	109.7	97.5	94.1
70°	102.8	97.5	93.2	80.1	76.6
72.5°	81.9	76.6	70.5	63.6	61.0
75°	61.8	57.5	54.0	51.4	56.6
77.5°	42.7	40.9	38.3	35.7	34.8
80°	27.9	27.0	26.1	25.3	24.4
82.5°	16.5	16.5	16.5	16.5	16.5
85°	8.7	9.6	10.5	11.3	12.2
87.5°	5.2	5.2	6.1	7.0	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)