

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: P559096

Luminaire Tested: FSR-12-1-LD4-2HI-40-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559096
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-LD4-2HI-40-UNV-80-88-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1383.0 lumens
Efficiency: N/A
Efficacy: 64.0 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

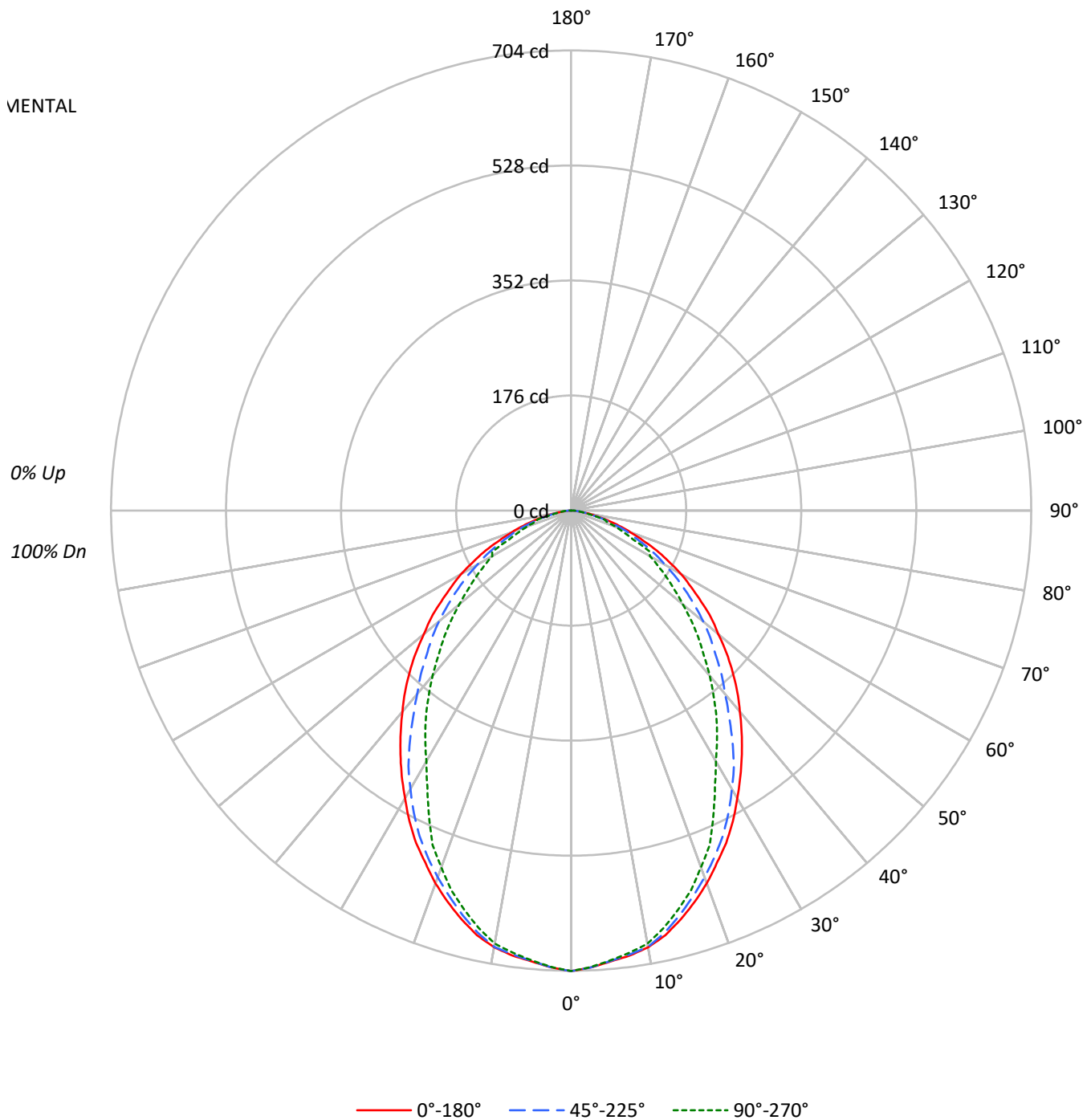
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559096

CATALOG NUMBER: FSR-12-1-LD4-2HI-40-UNV-80-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559096

CATALOG NUMBER: FSR-12-1-LD4-2HI-40-UNV-80-88-EDD-90

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°	7583	7583	7583
5°	7480	7472	7462
10°	7415	7406	7353
15°	7215	7143	7043
20°	6951	6838	6652
25°	6664	6519	6113
30°	6316	6114	5506
35°	5983	5650	5094
40°	5642	5150	4634
45°	5319	4760	4191
50°	4923	4419	3738
55°	4555	4005	3348
60°	4172	3576	2999
65°	3673	3133	2654
70°	3024	2741	2257
75°	2404	2100	2200
80°	1618	1512	1413
85°	1000	1210	1408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5319 cd/sqm



TEST NUMBER: P559096

CATALOG NUMBER: FSR-12-1-LD4-2HI-40-UNV-80-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.6	4.7
10°-20°	180.0	13.0
20°-30°	249.2	18.0
30°-40°	265.7	19.2
40°-50°	242.4	17.5
50°-60°	189.9	13.7
60°-70°	123.8	8.9
70°-80°	54.8	4.0
80°-90°	11.8	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°	494.7	35.8
0°-40°	760.4	55.0
0°-60°	1192.6	86.2
0°-90°	1383.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1383.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	692	692	692	691	691	66
15°	648	648	641	634	632	182
25°	561	558	549	529	515	258
35°	455	452	430	397	388	285
45°	349	342	313	287	275	269
55°	243	235	213	188	178	218
65°	144	136	123	125	104	142
75°	58	54	50	48	53	62
85°	8	9	10	11	11	11
90°	0	0	0	0	0	



TEST NUMBER: P559096

CATALOG NUMBER: FSR-12-1-LD4-2HI-40-UNV-80-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	704.5	704.5	704.5	704.5	704.5
2.5°	699.6	699.6	699.6	698.8	698.8
5°	692.3	691.5	691.5	690.6	690.6
7.5°	686.6	685.7	684.9	684.1	682.5
10°	678.4	678.4	677.6	673.5	672.7
12.5°	665.4	664.6	661.3	655.6	654.0
15°	647.5	647.5	641.0	634.4	632.0
17.5°	627.9	627.1	619.0	612.5	609.2
20°	606.8	605.1	597.0	586.4	580.7
22.5°	583.1	583.1	573.4	559.5	553.8
25°	561.1	557.9	548.9	529.4	514.7
27.5°	535.9	531.0	521.2	493.5	476.4
30°	508.2	505.8	491.9	456.1	443.0
32.5°	482.1	478.1	463.4	425.9	415.4
35°	455.3	452.0	430.0	397.4	387.7
37.5°	428.4	424.3	396.6	370.6	358.3
40°	401.5	396.6	366.5	342.9	329.8
42.5°	376.3	369.8	340.4	315.2	300.5
45°	349.4	342.1	312.7	286.7	275.3
47.5°	322.5	316.0	289.1	262.2	249.2
50°	294.0	288.3	263.9	237.0	223.2
52.5°	270.4	261.4	237.8	210.9	199.5
55°	242.7	235.4	213.4	188.1	178.4
57.5°	217.5	210.1	189.8	166.1	158.0
60°	193.8	183.2	166.1	145.8	139.3
62.5°	167.8	159.6	145.0	127.9	136.0
65°	144.2	136.0	123.0	125.4	104.2
67.5°	118.1	114.0	102.6	91.2	88.0
70°	96.1	91.2	87.1	74.9	71.7
72.5°	76.6	71.7	66.0	59.5	57.0
75°	57.8	53.8	50.5	48.1	52.9
77.5°	39.9	38.3	35.8	33.4	32.6
80°	26.1	25.2	24.4	23.6	22.8
82.5°	15.5	15.5	15.5	15.5	15.5
85°	8.1	9.0	9.8	10.6	11.4
87.5°	4.9	4.9	5.7	6.5	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)