

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: P560436

Luminaire Tested: FSR-12-2-LD4-2LO-40-UNV-80-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560436
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-80-86-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1873.0 lumens
Efficiency: N/A
Efficacy: 80.0 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

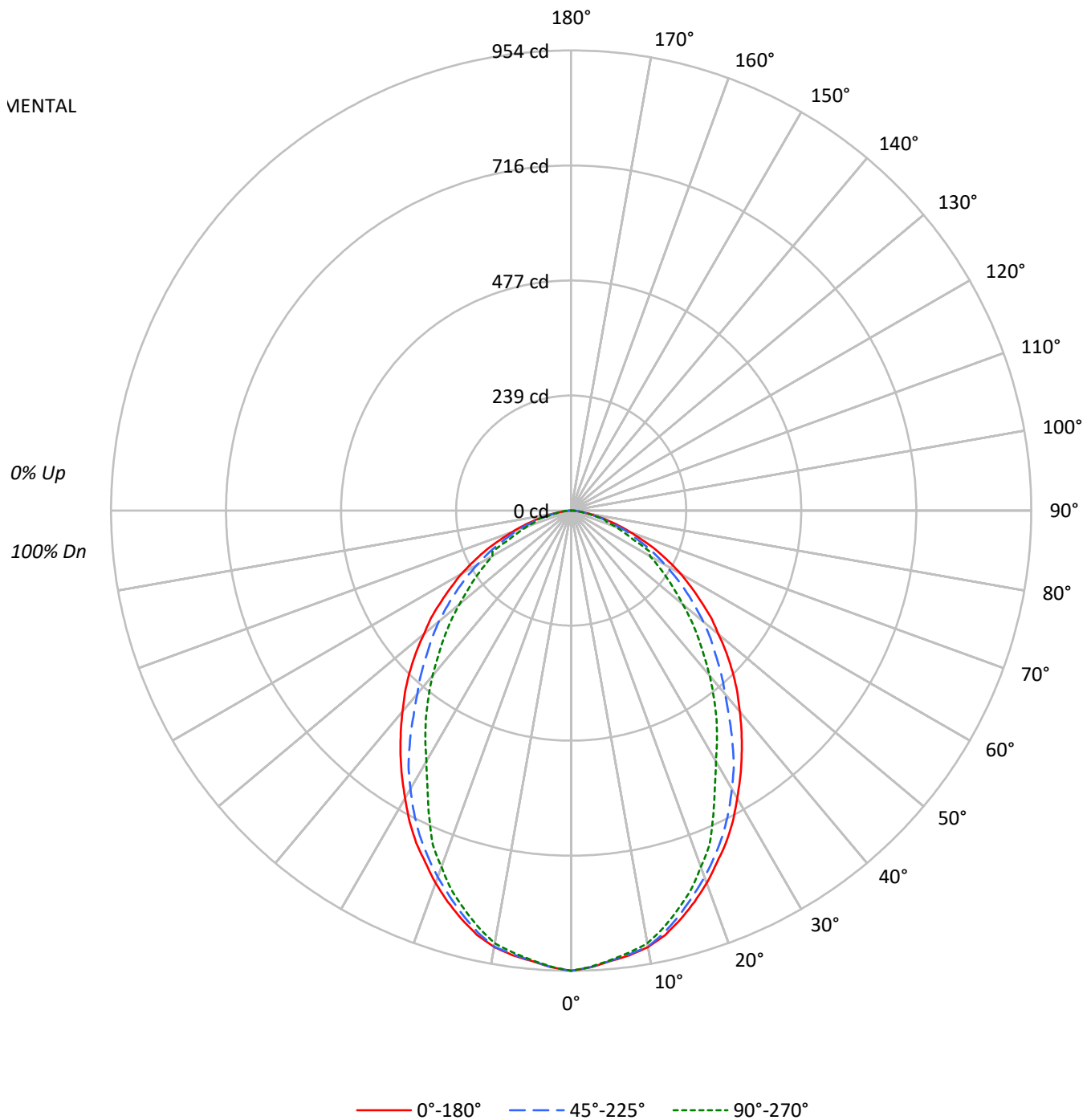
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5135	5135	5135
5°	5065	5059	5053
10°	5021	5015	4979
15°	4886	4836	4769
20°	4706	4631	4504
25°	4513	4415	4140
30°	4277	4140	3729
35°	4051	3826	3449
40°	3821	3487	3138
45°	3602	3223	2837
50°	3334	2992	2530
55°	3084	2712	2267
60°	2826	2422	2030
65°	2486	2122	1798
70°	2049	1857	1528
75°	1628	1422	1491
80°	1094	1026	958
85°	679	815	951

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3602 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.8	4.7
10°-20°	243.7	13.0
20°-30°	337.4	18.0
30°-40°	359.8	19.2
40°-50°	328.3	17.5
50°-60°	257.2	13.7
60°-70°	167.6	8.9
70°-80°	74.2	4.0
80°-90°	15.9	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°	670.0	35.8
0°-40°	1029.8	55.0
0°-60°	1615.2	86.2
0°-90°	1873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1873.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	954	954	954	954	954	
5°	938	936	936	935	935	89
15°	877	877	868	859	856	247
25°	760	756	743	717	697	349
35°	617	612	582	538	525	385
45°	473	463	424	388	373	365
55°	329	319	289	255	242	295
65°	195	184	167	170	141	192
75°	78	73	68	65	72	84
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	954.1	954.1	954.1	954.1	954.1
2.5°	947.5	947.5	947.5	946.4	946.4
5°	937.5	936.4	936.4	935.3	935.3
7.5°	929.8	928.7	927.6	926.5	924.3
10°	918.8	918.8	917.7	912.2	911.1
12.5°	901.1	900.0	895.6	887.9	885.7
15°	876.9	876.9	868.0	859.2	855.9
17.5°	850.4	849.3	838.3	829.4	825.0
20°	821.7	819.5	808.5	794.1	786.4
22.5°	789.7	789.7	776.5	757.8	750.0
25°	760.0	755.5	743.4	716.9	697.1
27.5°	725.8	719.1	705.9	668.4	645.2
30°	688.3	685.0	666.2	617.7	600.0
32.5°	653.0	647.5	627.6	576.9	562.5
35°	616.6	612.2	582.4	538.3	525.0
37.5°	580.2	574.7	537.2	501.9	485.3
40°	543.8	537.2	496.3	464.4	446.7
42.5°	509.6	500.8	461.0	426.9	407.0
45°	473.2	463.3	423.5	388.3	372.8
47.5°	436.8	428.0	391.6	355.2	337.5
50°	398.2	390.5	357.4	321.0	302.2
52.5°	366.2	354.1	322.1	285.7	270.2
55°	328.7	318.8	289.0	254.8	241.6
57.5°	294.5	284.6	257.0	225.0	214.0
60°	262.5	248.2	225.0	197.4	188.6
62.5°	227.2	216.2	196.3	173.2	184.2
65°	195.2	184.2	166.6	169.9	141.2
67.5°	159.9	154.4	139.0	123.5	119.1
70°	130.2	123.5	118.0	101.5	97.1
72.5°	103.7	97.1	89.3	80.5	77.2
75°	78.3	72.8	68.4	65.1	71.7
77.5°	54.0	51.8	48.5	45.2	44.1
80°	35.3	34.2	33.1	32.0	30.9
82.5°	21.0	21.0	21.0	21.0	21.0
85°	11.0	12.1	13.2	14.3	15.4
87.5°	6.6	6.6	7.7	8.8	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)