

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: P560313

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560313
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-LD4-2HI-50-UNV-80-88-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3245.0 lumens
Efficiency: N/A
Efficacy: 75.1 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

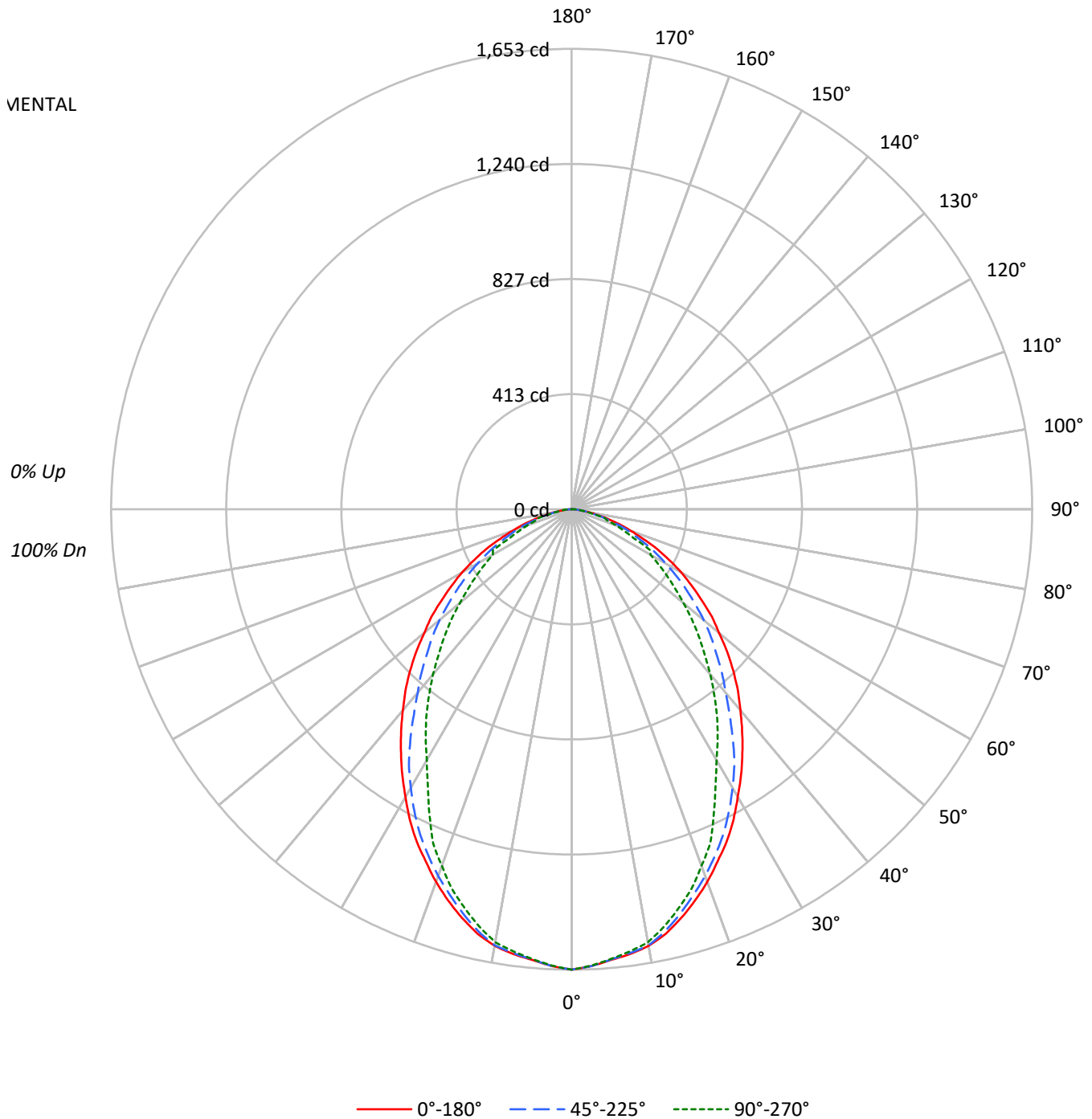
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8896	8896	8896
5°	8775	8765	8755
10°	8699	8689	8626
15°	8465	8379	8262
20°	8153	8022	7804
25°	7818	7649	7172
30°	7410	7173	6460
35°	7018	6629	5976
40°	6619	6041	5437
45°	6240	5585	4916
50°	5776	5184	4384
55°	5344	4698	3927
60°	4895	4196	3518
65°	4307	3675	3115
70°	3548	3218	2647
75°	2822	2464	2583
80°	1894	1776	1658
85°	1179	1414	1655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6240 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.9	4.7
10°-20°	422.3	13.0
20°-30°	584.6	18.0
30°-40°	623.4	19.2
40°-50°	568.7	17.5
50°-60°	445.5	13.7
60°-70°	290.4	8.9
70°-80°	128.6	4.0
80°-90°	27.6	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°	1160.8	35.8
0°-40°	1784.1	55.0
0°-60°	2798.3	86.2
0°-90°	3245.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3245.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1653	1653	1653	1653	1653	
5°	1624	1622	1622	1620	1620	154
15°	1519	1519	1504	1489	1483	427
25°	1317	1309	1288	1242	1208	604
35°	1068	1061	1009	932	910	668
45°	820	803	734	673	646	631
55°	570	552	501	441	418	511
65°	338	319	289	294	245	333
75°	136	126	118	113	124	145
85°	19	21	23	25	27	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1653.0	1653.0	1653.0	1653.0	1653.0
2.5°	1641.5	1641.5	1641.5	1639.6	1639.6
5°	1624.3	1622.4	1622.4	1620.5	1620.5
7.5°	1610.9	1609.0	1607.1	1605.2	1601.4
10°	1591.8	1591.8	1589.9	1580.3	1578.4
12.5°	1561.2	1559.3	1551.7	1538.3	1534.5
15°	1519.2	1519.2	1503.9	1488.6	1482.9
17.5°	1473.3	1471.4	1452.3	1437.0	1429.4
20°	1423.6	1419.8	1400.7	1375.9	1362.5
22.5°	1368.2	1368.2	1345.3	1312.8	1299.4
25°	1316.6	1309.0	1288.0	1242.1	1207.7
27.5°	1257.4	1245.9	1223.0	1158.0	1117.9
30°	1192.4	1186.7	1154.2	1070.1	1039.5
32.5°	1131.3	1121.7	1087.3	999.4	974.6
35°	1068.2	1060.6	1009.0	932.5	909.6
37.5°	1005.2	995.6	930.6	869.5	840.8
40°	942.1	930.6	859.9	804.5	773.9
42.5°	882.9	867.6	798.8	739.5	705.1
45°	819.8	802.6	733.8	672.6	645.9
47.5°	756.7	741.4	678.4	615.3	584.7
50°	689.8	676.5	619.1	556.1	523.6
52.5°	634.4	613.4	558.0	494.9	468.2
55°	569.5	552.3	500.7	441.4	418.5
57.5°	510.2	493.0	445.2	389.8	370.7
60°	454.8	430.0	389.8	342.1	326.8
62.5°	393.7	374.5	340.1	300.0	319.1
65°	338.2	319.1	288.6	294.3	244.6
67.5°	277.1	267.5	240.8	214.0	206.4
70°	225.5	214.0	204.5	175.8	168.2
72.5°	179.6	168.2	154.8	139.5	133.8
75°	135.7	126.1	118.5	112.7	124.2
77.5°	93.6	89.8	84.1	78.3	76.4
80°	61.1	59.2	57.3	55.4	53.5
82.5°	36.3	36.3	36.3	36.3	36.3
85°	19.1	21.0	22.9	24.8	26.8
87.5°	11.5	11.5	13.4	15.3	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)