

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: P560310

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560310
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-80-87-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3135.0 lumens
Efficiency: N/A
Efficacy: 72.6 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

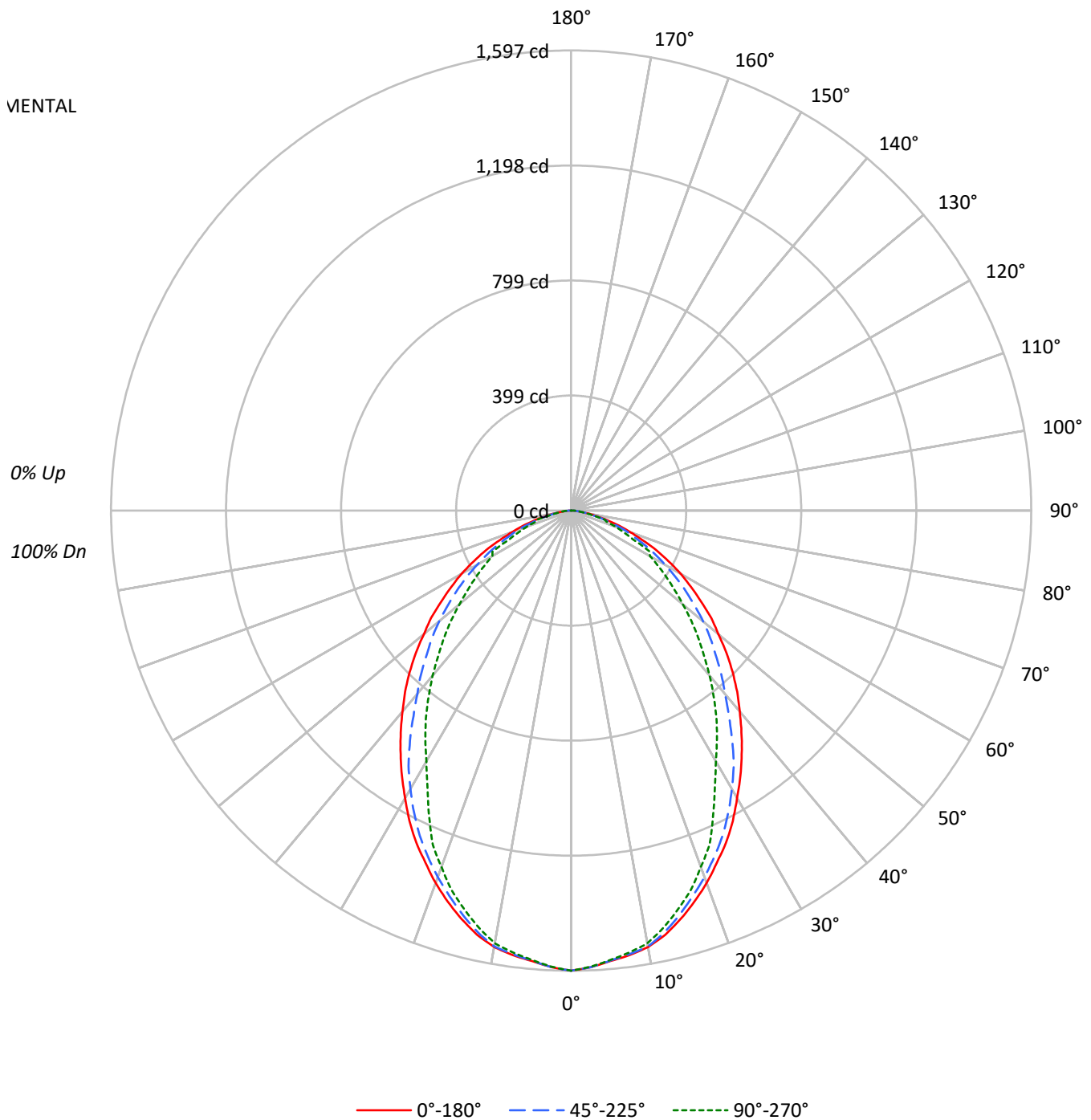
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8594	8594	8594
5°	8478	8468	8458
10°	8405	8394	8334
15°	8178	8095	7982
20°	7877	7750	7539
25°	7554	7389	6929
30°	7159	6930	6241
35°	6780	6405	5774
40°	6395	5837	5253
45°	6028	5396	4749
50°	5580	5009	4235
55°	5163	4539	3794
60°	4730	4054	3398
65°	4162	3550	3009
70°	3427	3108	2557
75°	2726	2381	2495
80°	1832	1717	1602
85°	1142	1371	1593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6028 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.7	4.7
10°-20°	408.0	13.0
20°-30°	564.8	18.0
30°-40°	602.2	19.2
40°-50°	549.4	17.5
50°-60°	430.4	13.7
60°-70°	280.5	8.9
70°-80°	124.3	4.0
80°-90°	26.7	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°	1121.4	35.8
0°-40°	1723.7	55.0
0°-60°	2703.5	86.2
0°-90°	3135.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3135.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1597	1597	1597	1597	1597	
5°	1569	1567	1567	1566	1566	149
15°	1468	1468	1453	1438	1433	413
25°	1272	1265	1244	1200	1167	584
35°	1032	1025	975	901	879	645
45°	792	775	709	650	624	610
55°	550	534	484	426	404	493
65°	327	308	279	284	236	322
75°	131	122	114	109	120	140
85°	18	20	22	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1596.9	1596.9	1596.9	1596.9	1596.9
2.5°	1585.9	1585.9	1585.9	1584.0	1584.0
5°	1569.2	1567.4	1567.4	1565.5	1565.5
7.5°	1556.3	1554.5	1552.6	1550.8	1547.1
10°	1537.9	1537.9	1536.0	1526.8	1524.9
12.5°	1508.3	1506.5	1499.1	1486.2	1482.5
15°	1467.7	1467.7	1452.9	1438.2	1432.6
17.5°	1423.4	1421.5	1403.1	1388.3	1380.9
20°	1375.4	1371.7	1353.2	1329.2	1316.3
22.5°	1321.8	1321.8	1299.7	1268.3	1255.4
25°	1272.0	1264.6	1244.3	1200.0	1166.8
27.5°	1214.8	1203.7	1181.5	1118.8	1080.0
30°	1152.0	1146.5	1115.1	1033.8	1004.3
32.5°	1092.9	1083.7	1050.5	965.5	941.5
35°	1032.0	1024.6	974.8	900.9	878.8
37.5°	971.1	961.8	899.1	840.0	812.3
40°	910.2	899.1	830.8	777.2	747.7
42.5°	852.9	838.2	771.7	714.5	681.2
45°	792.0	775.4	708.9	649.8	624.0
47.5°	731.1	716.3	655.4	594.5	564.9
50°	666.5	653.5	598.2	537.2	505.8
52.5°	612.9	592.6	539.1	478.2	452.3
55°	550.2	533.5	483.7	426.5	404.3
57.5°	492.9	476.3	430.2	376.6	358.2
60°	439.4	415.4	376.6	330.5	315.7
62.5°	380.3	361.8	328.6	289.8	308.3
65°	326.8	308.3	278.8	284.3	236.3
67.5°	267.7	258.5	232.6	206.8	199.4
70°	217.8	206.8	197.5	169.8	162.5
72.5°	173.5	162.5	149.5	134.8	129.2
75°	131.1	121.8	114.5	108.9	120.0
77.5°	90.5	86.8	81.2	75.7	73.8
80°	59.1	57.2	55.4	53.5	51.7
82.5°	35.1	35.1	35.1	35.1	35.1
85°	18.5	20.3	22.2	24.0	25.8
87.5°	11.1	11.1	12.9	14.8	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)