

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: P560240

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560240
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-40-UNV-80-84-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3176.0 lumens
Efficiency: N/A
Efficacy: 73.5 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

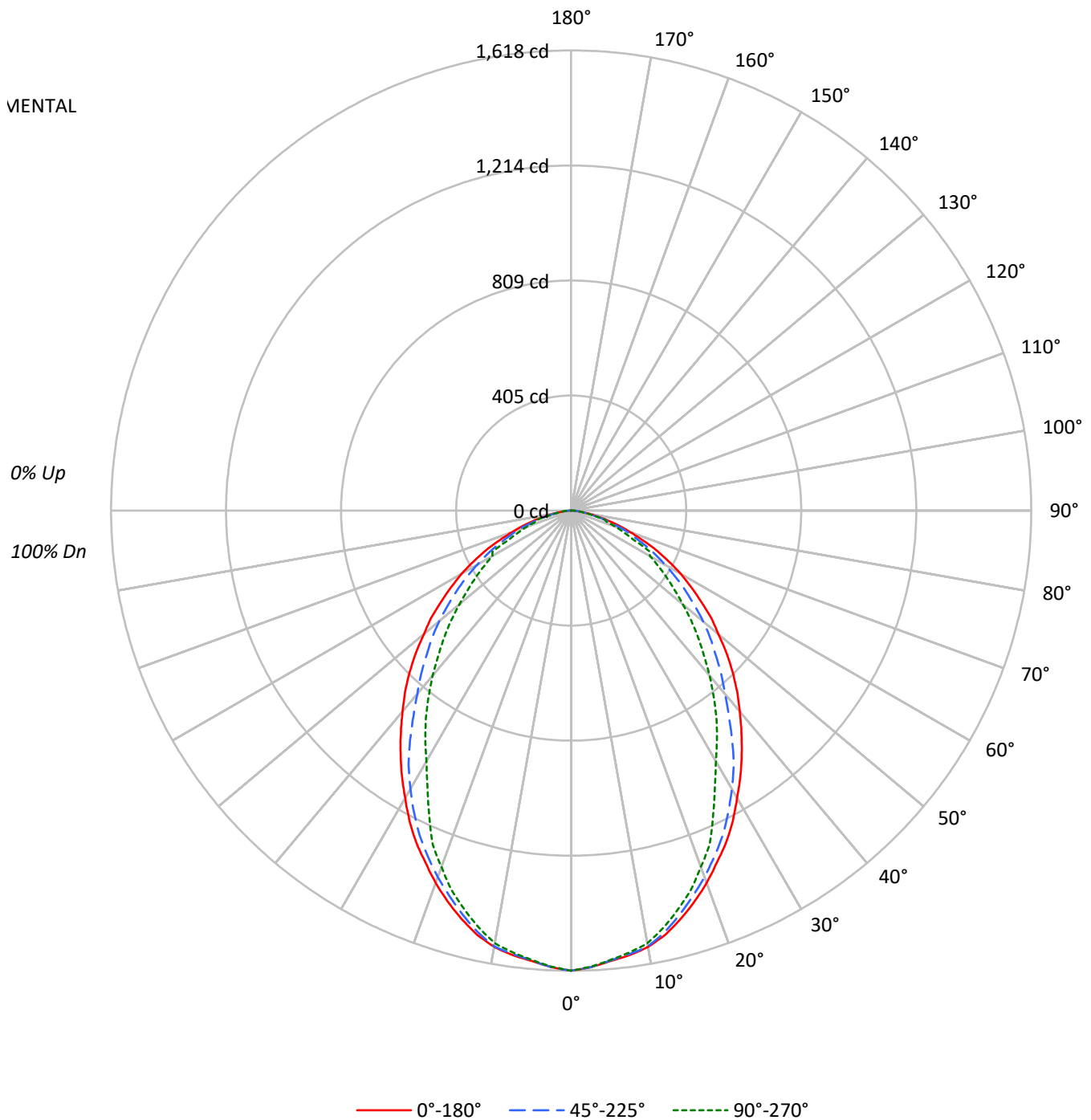
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8707	8707	8707
5°	8589	8579	8568
10°	8514	8504	8443
15°	8285	8201	8087
20°	7981	7852	7637
25°	7652	7486	7019
30°	7253	7021	6323
35°	6869	6488	5849
40°	6478	5913	5322
45°	6107	5466	4812
50°	5653	5074	4291
55°	5230	4598	3843
60°	4791	4106	3442
65°	4215	3596	3049
70°	3473	3149	2590
75°	2761	2412	2529
80°	1853	1739	1624
85°	1155	1383	1618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6107 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.6	4.7
10°-20°	413.3	13.0
20°-30°	572.2	18.0
30°-40°	610.1	19.2
40°-50°	556.6	17.5
50°-60°	436.0	13.7
60°-70°	284.2	8.9
70°-80°	125.9	4.0
80°-90°	27.0	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°	1136.1	35.8
0°-40°	1746.2	55.0
0°-60°	2738.8	86.2
0°-90°	3176.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3176.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1618	1618	1618	1618	1618	
5°	1590	1588	1588	1586	1586	151
15°	1487	1487	1472	1457	1451	418
25°	1289	1281	1261	1216	1182	592
35°	1046	1038	988	913	890	654
45°	802	786	718	658	632	618
55°	557	540	490	432	410	500
65°	331	312	282	288	239	326
75°	133	123	116	110	122	142
85°	19	21	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°	1617.8	1617.8	1617.8	1617.8	1617.8
2.5°	1606.6	1606.6	1606.6	1604.7	1604.7
5°	1589.8	1587.9	1587.9	1586.0	1586.0
7.5°	1576.7	1574.8	1572.9	1571.1	1567.3
10°	1558.0	1558.0	1556.1	1546.7	1544.9
12.5°	1528.0	1526.2	1518.7	1505.6	1501.9
15°	1486.9	1486.9	1471.9	1457.0	1451.4
17.5°	1442.0	1440.1	1421.4	1406.5	1399.0
20°	1393.4	1389.6	1370.9	1346.6	1333.5
22.5°	1339.1	1339.1	1316.7	1284.9	1271.8
25°	1288.6	1281.2	1260.6	1215.7	1182.0
27.5°	1230.7	1219.4	1197.0	1133.4	1094.1
30°	1167.1	1161.5	1129.7	1047.4	1017.4
32.5°	1107.2	1097.9	1064.2	978.2	953.9
35°	1045.5	1038.0	987.5	912.7	890.3
37.5°	983.8	974.4	910.8	851.0	822.9
40°	922.1	910.8	841.6	787.4	757.5
42.5°	864.1	849.1	781.8	723.8	690.1
45°	802.4	785.5	718.2	658.3	632.2
47.5°	740.6	725.7	664.0	602.2	572.3
50°	675.2	662.1	606.0	544.3	512.5
52.5°	620.9	600.4	546.1	484.4	458.2
55°	557.4	540.5	490.0	432.0	409.6
57.5°	499.4	482.5	435.8	381.5	362.8
60°	445.1	420.8	381.5	334.8	319.8
62.5°	385.3	366.6	332.9	293.6	312.3
65°	331.0	312.3	282.4	288.0	239.4
67.5°	271.2	261.8	235.7	209.5	202.0
70°	220.7	209.5	200.1	172.1	164.6
72.5°	175.8	164.6	151.5	136.5	130.9
75°	132.8	123.4	116.0	110.3	121.6
77.5°	91.6	87.9	82.3	76.7	74.8
80°	59.8	58.0	56.1	54.2	52.4
82.5°	35.5	35.5	35.5	35.5	35.5
85°	18.7	20.6	22.4	24.3	26.2
87.5°	11.2	11.2	13.1	15.0	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)