

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: P560330

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-81-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560330
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-81-94-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3184.0 lumens
Efficiency: N/A
Efficacy: 73.7 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

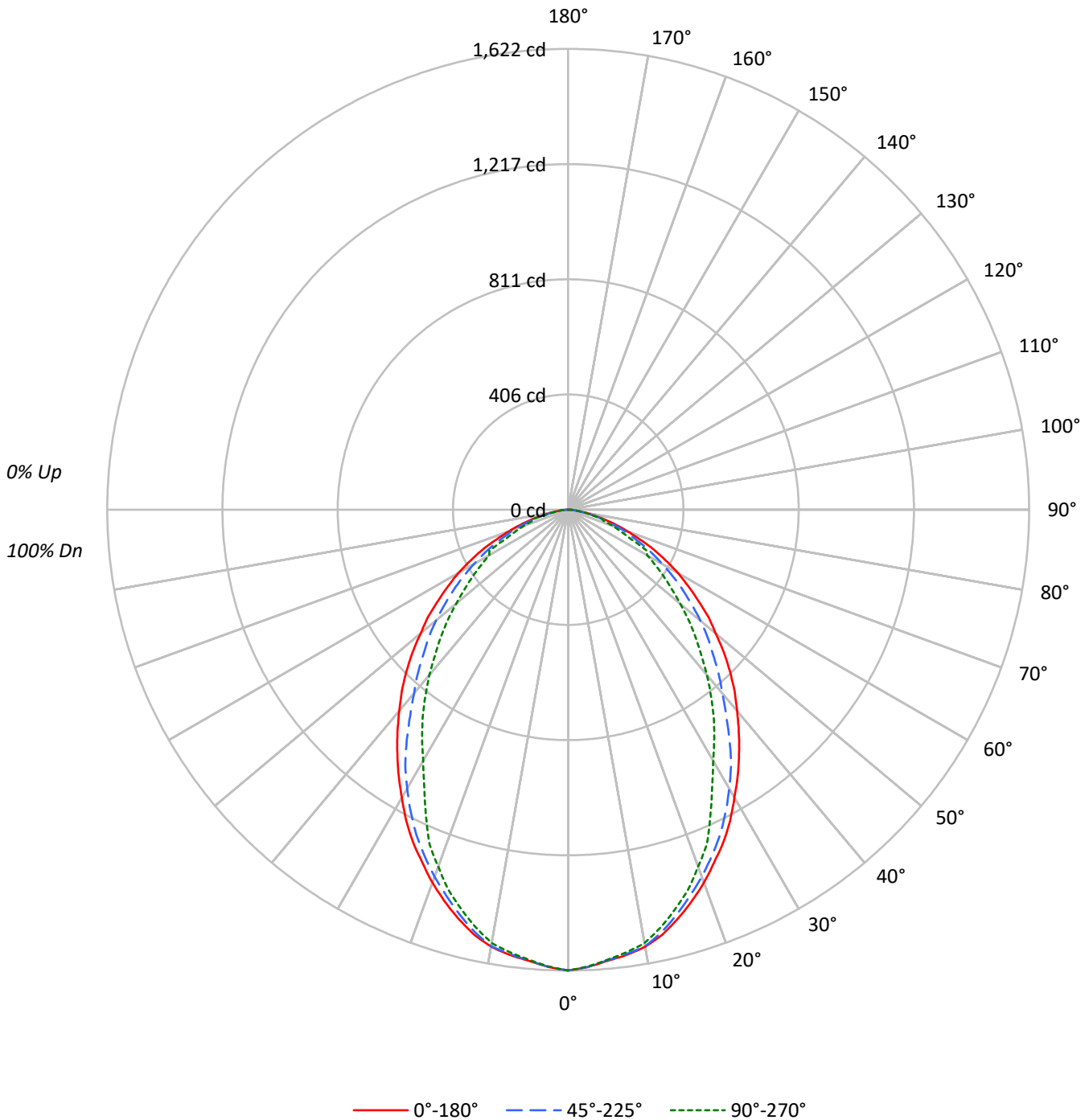
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8729	8729	8729
5°	8611	8600	8590
10°	8536	8525	8464
15°	8305	8222	8107
20°	8001	7872	7657
25°	7672	7505	7037
30°	7271	7038	6339
35°	6886	6504	5864
40°	6495	5928	5335
45°	6122	5480	4824
50°	5668	5087	4302
55°	5243	4610	3853
60°	4804	4117	3451
65°	4227	3605	3056
70°	3482	3157	2596
75°	2768	2418	2535
80°	1860	1745	1627
85°	1161	1389	1624

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6122 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.0	4.7
10°-20°	414.3	13.0
20°-30°	573.6	18.0
30°-40°	611.6	19.2
40°-50°	558.0	17.5
50°-60°	437.2	13.7
60°-70°	284.9	8.9
70°-80°	126.2	4.0
80°-90°	27.1	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°	1138.9	35.8
0°-40°	1750.6	55.0
0°-60°	2745.8	86.2
0°-90°	3184.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3184.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1622	1622	1622	1622	1622	
5°	1594	1592	1592	1590	1590	151
15°	1491	1491	1476	1461	1455	419
25°	1292	1284	1264	1219	1185	593
35°	1048	1041	990	915	892	655
45°	804	788	720	660	634	620
55°	559	542	491	433	411	501
65°	332	313	283	289	240	327
75°	133	124	116	111	122	143
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°	1621.9	1621.9	1621.9	1621.9	1621.9
2.5°	1610.6	1610.6	1610.6	1608.8	1608.8
5°	1593.8	1591.9	1591.9	1590.0	1590.0
7.5°	1580.6	1578.8	1576.9	1575.0	1571.3
10°	1561.9	1561.9	1560.0	1550.6	1548.8
12.5°	1531.9	1530.0	1522.5	1509.4	1505.6
15°	1490.6	1490.6	1475.6	1460.6	1455.0
17.5°	1445.6	1443.8	1425.0	1410.0	1402.5
20°	1396.9	1393.1	1374.4	1350.0	1336.9
22.5°	1342.5	1342.5	1320.0	1288.1	1275.0
25°	1291.9	1284.4	1263.8	1218.8	1185.0
27.5°	1233.8	1222.5	1200.0	1136.3	1096.9
30°	1170.0	1164.4	1132.5	1050.0	1020.0
32.5°	1110.0	1100.6	1066.9	980.6	956.3
35°	1048.1	1040.6	990.0	915.0	892.5
37.5°	986.3	976.9	913.1	853.1	825.0
40°	924.4	913.1	843.8	789.4	759.4
42.5°	866.3	851.3	783.8	725.6	691.9
45°	804.4	787.5	720.0	660.0	633.8
47.5°	742.5	727.5	665.6	603.8	573.8
50°	676.9	663.8	607.5	545.6	513.8
52.5°	622.5	601.9	547.5	485.6	459.4
55°	558.8	541.9	491.3	433.1	410.6
57.5°	500.6	483.8	436.9	382.5	363.8
60°	446.3	421.9	382.5	335.6	320.6
62.5°	386.3	367.5	333.8	294.4	313.1
65°	331.9	313.1	283.1	288.8	240.0
67.5°	271.9	262.5	236.3	210.0	202.5
70°	221.3	210.0	200.6	172.5	165.0
72.5°	176.3	165.0	151.9	136.9	131.3
75°	133.1	123.8	116.3	110.6	121.9
77.5°	91.9	88.1	82.5	76.9	75.0
80°	60.0	58.1	56.3	54.4	52.5
82.5°	35.6	35.6	35.6	35.6	35.6
85°	18.8	20.6	22.5	24.4	26.3
87.5°	11.3	11.3	13.1	15.0	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)