

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: P560208

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-82-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560208
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-35-UNV-82-84-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2912.0 lumens
Efficiency: N/A
Efficacy: 67.4 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

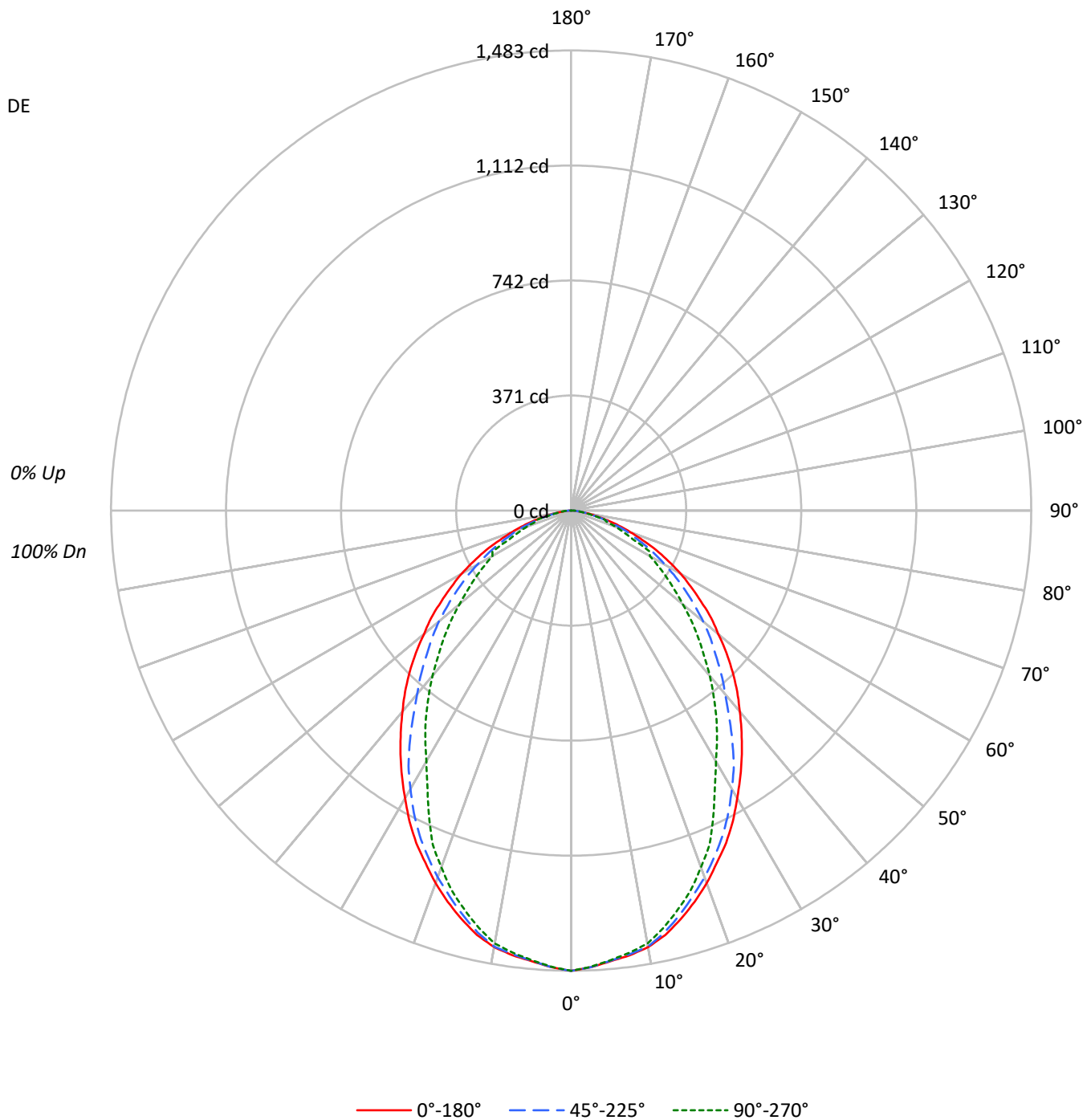
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7983	7983	7983
5°	7875	7866	7856
10°	7807	7797	7741
15°	7596	7520	7414
20°	7317	7199	7003
25°	7016	6864	6436
30°	6650	6437	5798
35°	6298	5949	5363
40°	5939	5422	4879
45°	5600	5012	4411
50°	5184	4652	3934
55°	4795	4216	3523
60°	4393	3765	3156
65°	3865	3297	2795
70°	3185	2888	2375
75°	2533	2210	2319
80°	1702	1593	1488
85°	1056	1272	1482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5600 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	4.7
10°-20°	378.9	13.0
20°-30°	524.6	18.0
30°-40°	559.4	19.2
40°-50°	510.3	17.5
50°-60°	399.8	13.7
60°-70°	260.6	8.9
70°-80°	115.5	4.0
80°-90°	24.8	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°	1041.6	35.8
0°-40°	1601.0	55.0
0°-60°	2511.2	86.2
0°-90°	2912.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2912.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1483	1483	1483	1483	1483	
5°	1458	1456	1456	1454	1454	138
15°	1363	1363	1350	1336	1331	383
25°	1182	1175	1156	1115	1084	542
35°	959	952	905	837	816	599
45°	736	720	658	604	580	567
55°	511	496	449	396	376	458
65°	304	286	259	264	220	299
75°	122	113	106	101	112	131
85°	17	19	21	22	24	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1483.3	1483.3	1483.3	1483.3	1483.3
2.5°	1473.0	1473.0	1473.0	1471.3	1471.3
5°	1457.6	1455.9	1455.9	1454.2	1454.2
7.5°	1445.6	1443.9	1442.2	1440.5	1437.0
10°	1428.5	1428.5	1426.7	1418.2	1416.5
12.5°	1401.0	1399.3	1392.4	1380.4	1377.0
15°	1363.3	1363.3	1349.6	1335.9	1330.7
17.5°	1322.1	1320.4	1303.3	1289.6	1282.7
20°	1277.6	1274.1	1257.0	1234.7	1222.7
22.5°	1227.8	1227.8	1207.2	1178.1	1166.1
25°	1181.5	1174.7	1155.8	1114.6	1083.8
27.5°	1128.4	1118.1	1097.5	1039.2	1003.2
30°	1070.1	1064.9	1035.8	960.3	932.9
32.5°	1015.2	1006.6	975.7	896.9	874.6
35°	958.6	951.7	905.4	836.8	816.3
37.5°	902.0	893.4	835.1	780.3	754.5
40°	845.4	835.1	771.7	721.9	694.5
42.5°	792.3	778.5	716.8	663.6	632.8
45°	735.7	720.2	658.5	603.6	579.6
47.5°	679.1	665.4	608.8	552.2	524.7
50°	619.1	607.1	555.6	499.0	469.9
52.5°	569.3	550.5	500.7	444.1	420.1
55°	511.0	495.6	449.3	396.1	375.5
57.5°	457.9	442.4	399.6	349.8	332.7
60°	408.1	385.8	349.8	307.0	293.2
62.5°	353.3	336.1	305.2	269.2	286.4
65°	303.5	286.4	258.9	264.1	219.5
67.5°	248.7	240.1	216.1	192.1	185.2
70°	202.4	192.1	183.5	157.8	150.9
72.5°	161.2	150.9	138.9	125.2	120.0
75°	121.8	113.2	106.3	101.2	111.5
77.5°	84.0	80.6	75.5	70.3	68.6
80°	54.9	53.2	51.4	49.7	48.0
82.5°	32.6	32.6	32.6	32.6	32.6
85°	17.1	18.9	20.6	22.3	24.0
87.5°	10.3	10.3	12.0	13.7	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)