

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: P560214

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-82-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560214
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-82-87-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2730.0 lumens
Efficiency: N/A
Efficacy: 63.2 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

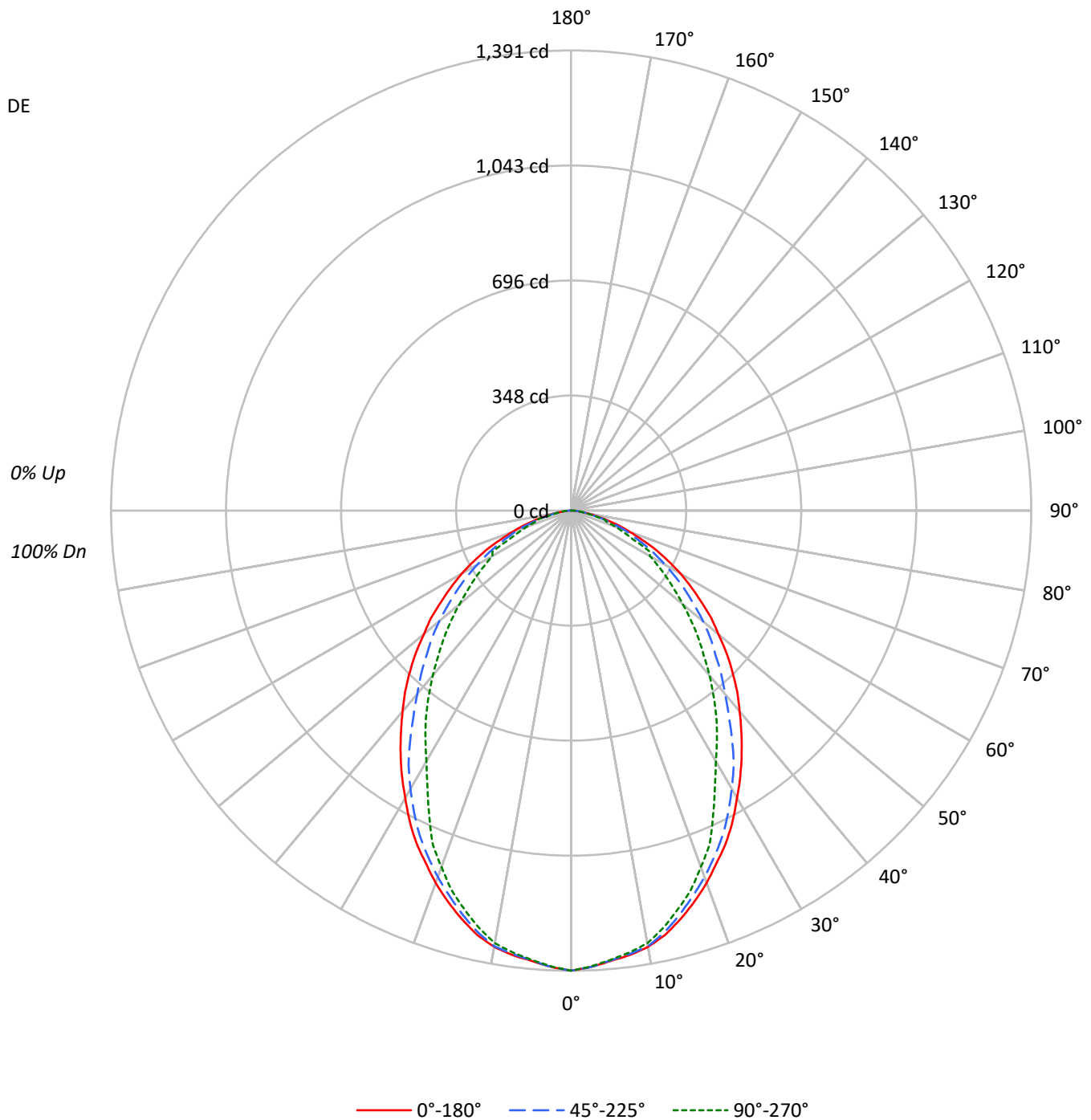
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7484	7484	7484
5°	7383	7374	7365
10°	7319	7310	7257
15°	7121	7049	6951
20°	6860	6749	6565
25°	6578	6435	6033
30°	6234	6034	5435
35°	5905	5577	5027
40°	5569	5082	4574
45°	5249	4698	4136
50°	4860	4361	3688
55°	4495	3952	3304
60°	4118	3531	2959
65°	3624	3092	2621
70°	2985	2707	2227
75°	2373	2073	2173
80°	1593	1494	1395
85°	994	1192	1389

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5249 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.4	4.7
10°-20°	355.3	13.0
20°-30°	491.8	18.0
30°-40°	524.4	19.2
40°-50°	478.4	17.5
50°-60°	374.8	13.7
60°-70°	244.3	8.9
70°-80°	108.2	4.0
80°-90°	23.2	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°	976.5	35.8
0°-40°	1501.0	55.0
0°-60°	2354.2	86.2
0°-90°	2730.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2730.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1366	1365	1365	1363	1363	130
15°	1278	1278	1265	1252	1248	359
25°	1108	1101	1084	1045	1016	509
35°	899	892	849	784	765	562
45°	690	675	617	566	543	531
55°	479	465	421	371	352	430
65°	285	268	243	248	206	280
75°	114	106	100	95	104	122
85°	16	18	19	21	22	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1390.6	1390.6	1390.6	1390.6	1390.6
2.5°	1381.0	1381.0	1381.0	1379.4	1379.4
5°	1366.5	1364.9	1364.9	1363.3	1363.3
7.5°	1355.3	1353.6	1352.0	1350.4	1347.2
10°	1339.2	1339.2	1337.6	1329.5	1327.9
12.5°	1313.5	1311.9	1305.4	1294.2	1291.0
15°	1278.1	1278.1	1265.2	1252.4	1247.5
17.5°	1239.5	1237.9	1221.8	1209.0	1202.5
20°	1197.7	1194.5	1178.4	1157.5	1146.3
22.5°	1151.1	1151.1	1131.8	1104.5	1093.2
25°	1107.7	1101.2	1083.6	1045.0	1016.0
27.5°	1057.8	1048.2	1028.9	974.2	940.5
30°	1003.2	998.4	971.0	900.3	874.6
32.5°	951.7	943.7	914.8	840.8	819.9
35°	898.7	892.3	848.8	784.5	765.2
37.5°	845.6	837.6	782.9	731.5	707.4
40°	792.6	782.9	723.4	676.8	651.1
42.5°	742.7	729.9	672.0	622.2	593.2
45°	689.7	675.2	617.3	565.9	543.4
47.5°	636.6	623.8	570.7	517.7	491.9
50°	580.4	569.1	520.9	467.8	440.5
52.5°	533.7	516.1	469.4	416.4	393.9
55°	479.1	464.6	421.2	371.4	352.1
57.5°	429.2	414.8	374.6	328.0	311.9
60°	382.6	361.7	328.0	287.8	274.9
62.5°	331.2	315.1	286.2	252.4	268.5
65°	284.6	268.5	242.8	247.6	205.8
67.5°	233.1	225.1	202.6	180.1	173.6
70°	189.7	180.1	172.0	147.9	141.5
72.5°	151.1	141.5	130.2	117.4	112.5
75°	114.1	106.1	99.7	94.9	104.5
77.5°	78.8	75.6	70.7	65.9	64.3
80°	51.4	49.8	48.2	46.6	45.0
82.5°	30.5	30.5	30.5	30.5	30.5
85°	16.1	17.7	19.3	20.9	22.5
87.5°	9.6	9.6	11.3	12.9	14.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)