

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: P558918

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-81-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558918
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-12-1-LD4-1STD-40-UNV-81-87-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 595.0 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

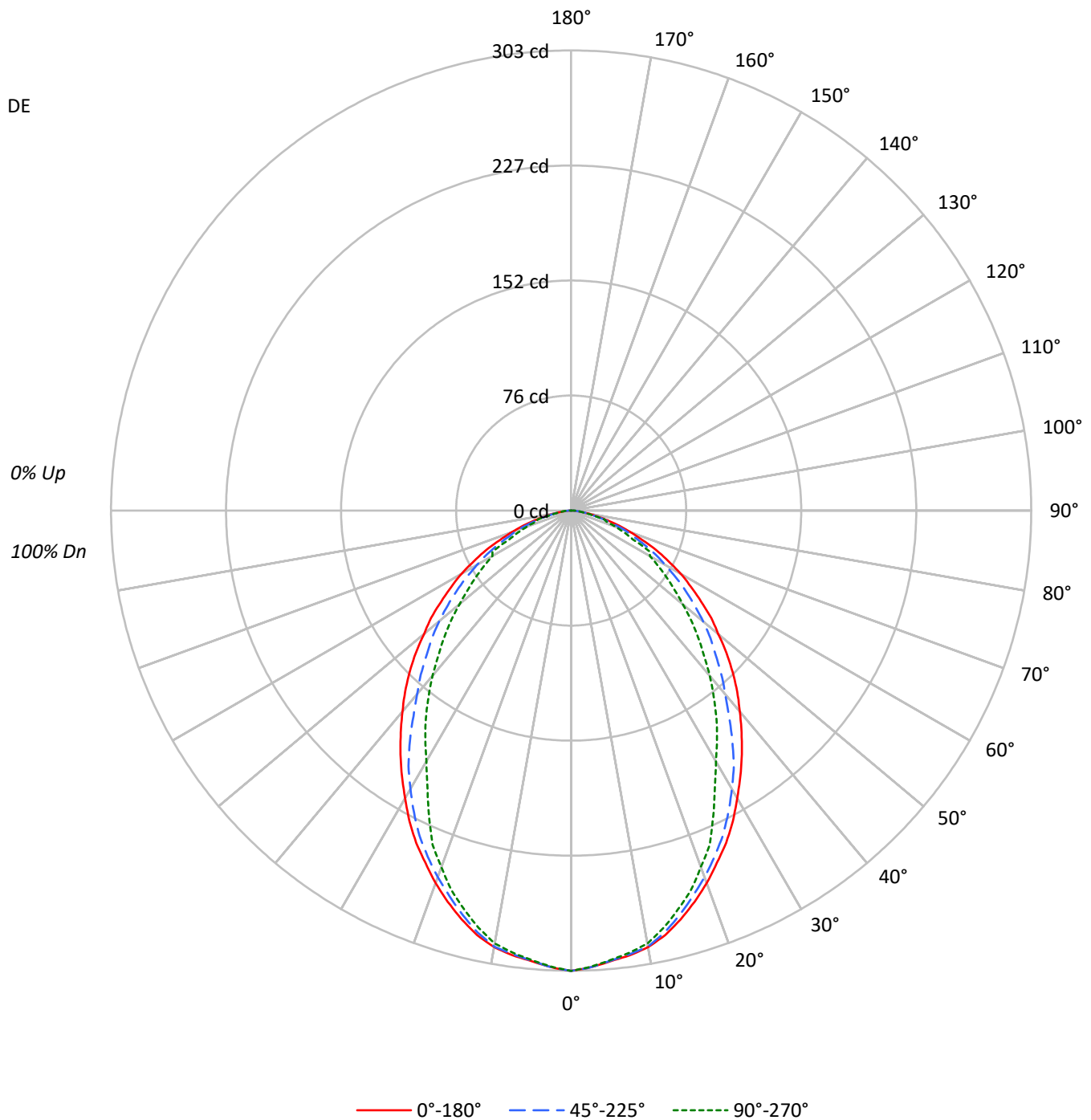
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3263	3263	3263
5°	3218	3214	3210
10°	3190	3186	3163
15°	3105	3073	3030
20°	2990	2942	2861
25°	2867	2805	2629
30°	2717	2630	2369
35°	2574	2431	2192
40°	2427	2216	1994
45°	2288	2047	1802
50°	2118	1901	1608
55°	1959	1723	1439
60°	1795	1539	1290
65°	1579	1347	1141
70°	1300	1180	969
75°	1036	902	948
80°	694	651	607
85°	432	519	605

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2288 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.2	4.7
10°-20°	77.4	13.0
20°-30°	107.2	18.0
30°-40°	114.3	19.2
40°-50°	104.3	17.5
50°-60°	81.7	13.7
60°-70°	53.2	8.9
70°-80°	23.6	4.0
80°-90°	5.1	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°	212.8	35.8
0°-40°	327.1	55.0
0°-60°	513.1	86.2
0°-90°	595.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	595.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	303	303	303	303	303	
5°	298	298	298	297	297	28
15°	279	279	276	273	272	78
25°	241	240	236	228	221	111
35°	196	194	185	171	167	122
45°	150	147	134	123	118	116
55°	104	101	92	81	77	94
65°	62	58	53	54	45	61
75°	25	23	22	21	23	27
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	303.1	303.1	303.1	303.1	303.1
2.5°	301.0	301.0	301.0	300.6	300.6
5°	297.8	297.5	297.5	297.1	297.1
7.5°	295.4	295.0	294.7	294.3	293.6
10°	291.9	291.9	291.5	289.8	289.4
12.5°	286.3	285.9	284.5	282.1	281.4
15°	278.6	278.6	275.8	273.0	271.9
17.5°	270.1	269.8	266.3	263.5	262.1
20°	261.0	260.3	256.8	252.3	249.8
22.5°	250.9	250.9	246.7	240.7	238.3
25°	241.4	240.0	236.2	227.8	221.4
27.5°	230.6	228.5	224.2	212.3	205.0
30°	218.6	217.6	211.6	196.2	190.6
32.5°	207.4	205.7	199.4	183.3	178.7
35°	195.9	194.5	185.0	171.0	166.8
37.5°	184.3	182.6	170.6	159.4	154.2
40°	172.7	170.6	157.7	147.5	141.9
42.5°	161.9	159.1	146.5	135.6	129.3
45°	150.3	147.2	134.5	123.3	118.4
47.5°	138.8	136.0	124.4	112.8	107.2
50°	126.5	124.0	113.5	102.0	96.0
52.5°	116.3	112.5	102.3	90.8	85.8
55°	104.4	101.3	91.8	80.9	76.7
57.5°	93.6	90.4	81.6	71.5	68.0
60°	83.4	78.8	71.5	62.7	59.9
62.5°	72.2	68.7	62.4	55.0	58.5
65°	62.0	58.5	52.9	54.0	44.8
67.5°	50.8	49.1	44.1	39.2	37.8
70°	41.3	39.2	37.5	32.2	30.8
72.5°	32.9	30.8	28.4	25.6	24.5
75°	24.9	23.1	21.7	20.7	22.8
77.5°	17.2	16.5	15.4	14.4	14.0
80°	11.2	10.9	10.5	10.2	9.8
82.5°	6.7	6.7	6.7	6.7	6.7
85°	3.5	3.9	4.2	4.6	4.9
87.5°	2.1	2.1	2.5	2.8	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)