

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: P558848

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-81-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558848
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-35-UNV-81-84-EDD-90
Description: 1X1 FSR TROFFER WITH .156 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: 625.0 lumens
Efficiency: N/A
Efficacy: 75.3 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

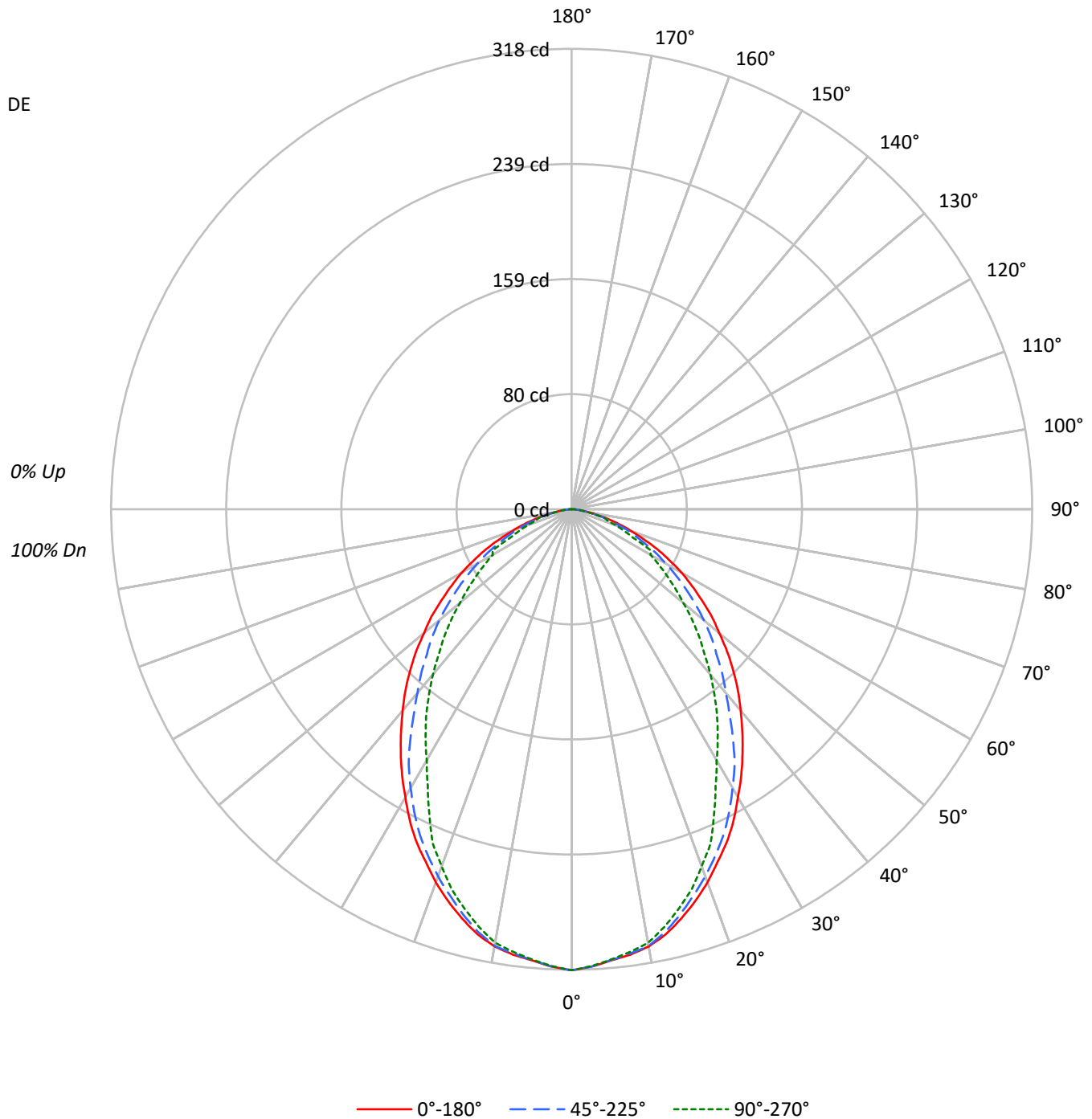
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3427	3427	3427
5°	3380	3377	3372
10°	3351	3347	3323
15°	3261	3228	3183
20°	3141	3090	3006
25°	3012	2947	2763
30°	2855	2763	2488
35°	2703	2553	2302
40°	2550	2327	2095
45°	2404	2151	1894
50°	2226	1996	1688
55°	2059	1809	1513
60°	1886	1617	1354
65°	1658	1416	1200
70°	1366	1240	1020
75°	1085	948	994
80°	731	682	638
85°	457	543	642

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2404 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.6	4.7
10°-20°	81.3	13.0
20°-30°	112.6	18.0
30°-40°	120.1	19.2
40°-50°	109.5	17.5
50°-60°	85.8	13.7
60°-70°	55.9	8.9
70°-80°	24.8	4.0
80°-90°	5.3	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°	223.6	35.8
0°-40°	343.6	55.0
0°-60°	539.0	86.2
0°-90°	625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	625.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	318	318	318	318	318	
5°	313	312	312	312	312	30
15°	293	293	290	287	286	82
25°	254	252	248	239	233	116
35°	206	204	194	180	175	129
45°	158	155	141	130	124	122
55°	110	106	96	85	81	98
65°	65	62	56	57	47	64
75°	26	24	23	22	24	28
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°	318.4	318.4	318.4	318.4	318.4
2.5°	316.2	316.2	316.2	315.8	315.8
5°	312.8	312.5	312.5	312.1	312.1
7.5°	310.3	309.9	309.5	309.2	308.4
10°	306.6	306.6	306.2	304.4	304.0
12.5°	300.7	300.3	298.9	296.3	295.5
15°	292.6	292.6	289.7	286.7	285.6
17.5°	283.8	283.4	279.7	276.8	275.3
20°	274.2	273.5	269.8	265.0	262.4
22.5°	263.5	263.5	259.1	252.9	250.3
25°	253.6	252.1	248.1	239.2	232.6
27.5°	242.2	240.0	235.6	223.0	215.3
30°	229.7	228.6	222.3	206.1	200.2
32.5°	217.9	216.0	209.4	192.5	187.7
35°	205.7	204.3	194.3	179.6	175.2
37.5°	193.6	191.8	179.2	167.5	161.9
40°	181.5	179.2	165.6	155.0	149.1
42.5°	170.0	167.1	153.8	142.4	135.8
45°	157.9	154.6	141.3	129.6	124.4
47.5°	145.7	142.8	130.7	118.5	112.6
50°	132.9	130.3	119.2	107.1	100.8
52.5°	122.2	118.1	107.5	95.3	90.2
55°	109.7	106.4	96.4	85.0	80.6
57.5°	98.3	95.0	85.8	75.1	71.4
60°	87.6	82.8	75.1	65.9	62.9
62.5°	75.8	72.1	65.5	57.8	61.5
65°	65.1	61.5	55.6	56.7	47.1
67.5°	53.4	51.5	46.4	41.2	39.7
70°	43.4	41.2	39.4	33.9	32.4
72.5°	34.6	32.4	29.8	26.9	25.8
75°	26.1	24.3	22.8	21.7	23.9
77.5°	18.0	17.3	16.2	15.1	14.7
80°	11.8	11.4	11.0	10.7	10.3
82.5°	7.0	7.0	7.0	7.0	7.0
85°	3.7	4.0	4.4	4.8	5.2
87.5°	2.2	2.2	2.6	2.9	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)