

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: P558858

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-81-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558858
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-81-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 627.0 lumens
Efficiency: N/A
Efficacy: 75.5 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

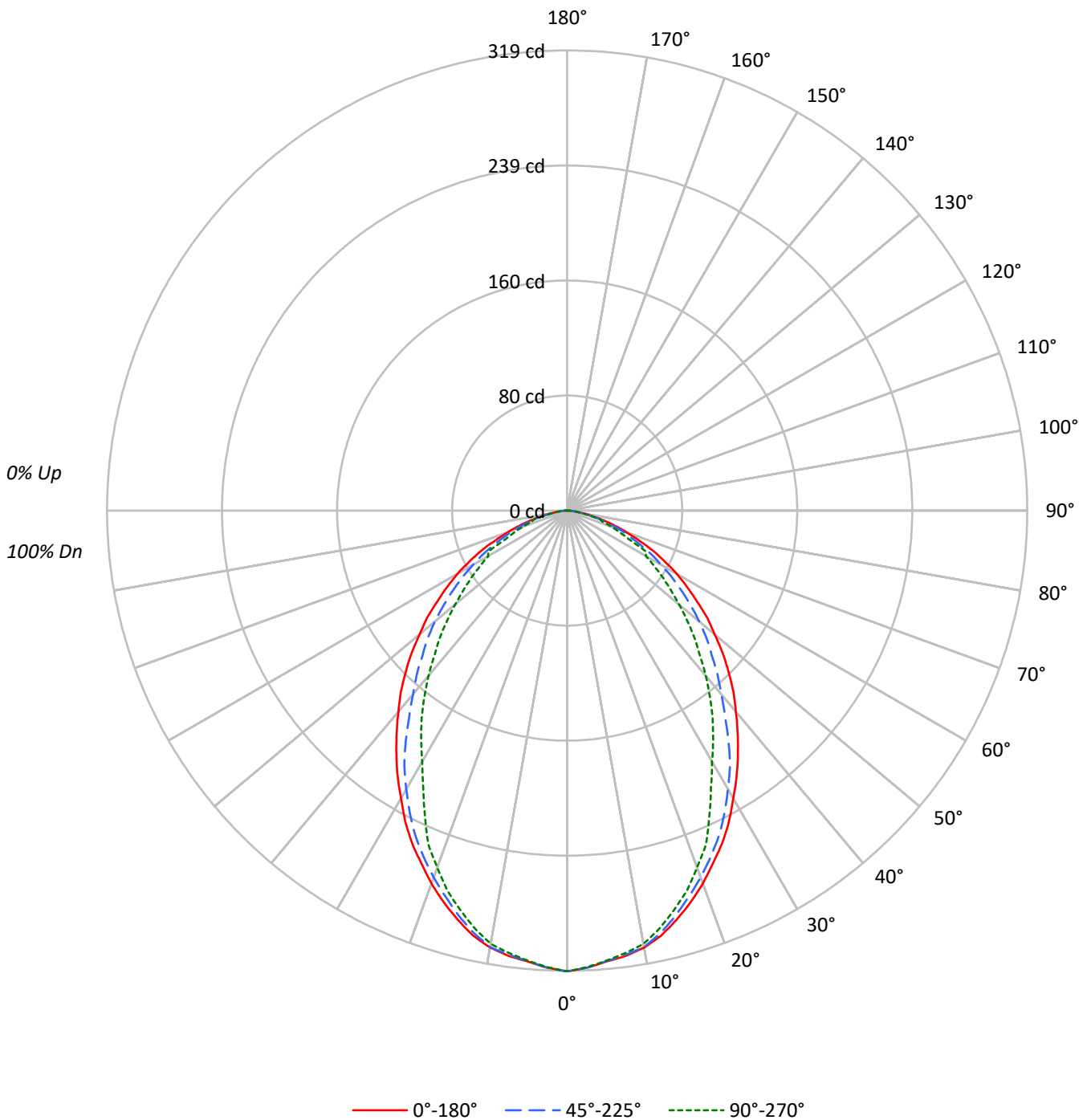
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3438	3438	3438
5°	3391	3387	3383
10°	3362	3358	3334
15°	3271	3238	3193
20°	3151	3100	3016
25°	3021	2956	2772
30°	2864	2772	2497
35°	2712	2562	2310
40°	2557	2335	2101
45°	2411	2159	1900
50°	2232	2003	1695
55°	2064	1815	1518
60°	1892	1621	1358
65°	1666	1421	1205
70°	1372	1243	1023
75°	1090	952	998
80°	731	688	638
85°	457	543	642

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2411 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.7	4.7
10°-20°	81.6	13.0
20°-30°	113.0	18.0
30°-40°	120.4	19.2
40°-50°	109.9	17.5
50°-60°	86.1	13.7
60°-70°	56.1	9.0
70°-80°	24.9	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°	224.3	35.8
0°-40°	344.7	55.0
0°-60°	540.7	86.2
0°-90°	627.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	627.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	319	319	319	319	319	
5°	314	314	314	313	313	30
15°	294	294	291	288	286	83
25°	254	253	249	240	233	117
35°	206	205	195	180	176	129
45°	158	155	142	130	125	122
55°	110	107	97	85	81	99
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°	319.4	319.4	319.4	319.4	319.4
2.5°	317.2	317.2	317.2	316.8	316.8
5°	313.8	313.5	313.5	313.1	313.1
7.5°	311.3	310.9	310.5	310.2	309.4
10°	307.6	307.6	307.2	305.4	305.0
12.5°	301.7	301.3	299.8	297.2	296.5
15°	293.5	293.5	290.6	287.6	286.5
17.5°	284.7	284.3	280.6	277.7	276.2
20°	275.1	274.3	270.6	265.8	263.3
22.5°	264.4	264.4	259.9	253.7	251.1
25°	254.4	252.9	248.9	240.0	233.4
27.5°	243.0	240.7	236.3	223.8	216.0
30°	230.4	229.3	223.0	206.8	200.9
32.5°	218.6	216.7	210.1	193.1	188.3
35°	206.4	204.9	195.0	180.2	175.8
37.5°	194.2	192.4	179.8	168.0	162.5
40°	182.0	179.8	166.2	155.4	149.5
42.5°	170.6	167.6	154.3	142.9	136.2
45°	158.4	155.1	141.8	130.0	124.8
47.5°	146.2	143.3	131.1	118.9	113.0
50°	133.3	130.7	119.6	107.4	101.2
52.5°	122.6	118.5	107.8	95.6	90.5
55°	110.0	106.7	96.7	85.3	80.9
57.5°	98.6	95.3	86.0	75.3	71.6
60°	87.9	83.1	75.3	66.1	63.1
62.5°	76.1	72.4	65.7	58.0	61.7
65°	65.4	61.7	55.8	56.9	47.3
67.5°	53.5	51.7	46.5	41.4	39.9
70°	43.6	41.4	39.5	34.0	32.5
72.5°	34.7	32.5	29.9	27.0	25.8
75°	26.2	24.4	22.9	21.8	24.0
77.5°	18.1	17.4	16.2	15.1	14.8
80°	11.8	11.4	11.1	10.7	10.3
82.5°	7.0	7.0	7.0	7.0	7.0
85°	3.7	4.1	4.4	4.8	5.2
87.5°	2.2	2.2	2.6	3.0	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)