

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: P558721

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-81-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558721
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-LD4-1LO-40-UNV-81-84-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

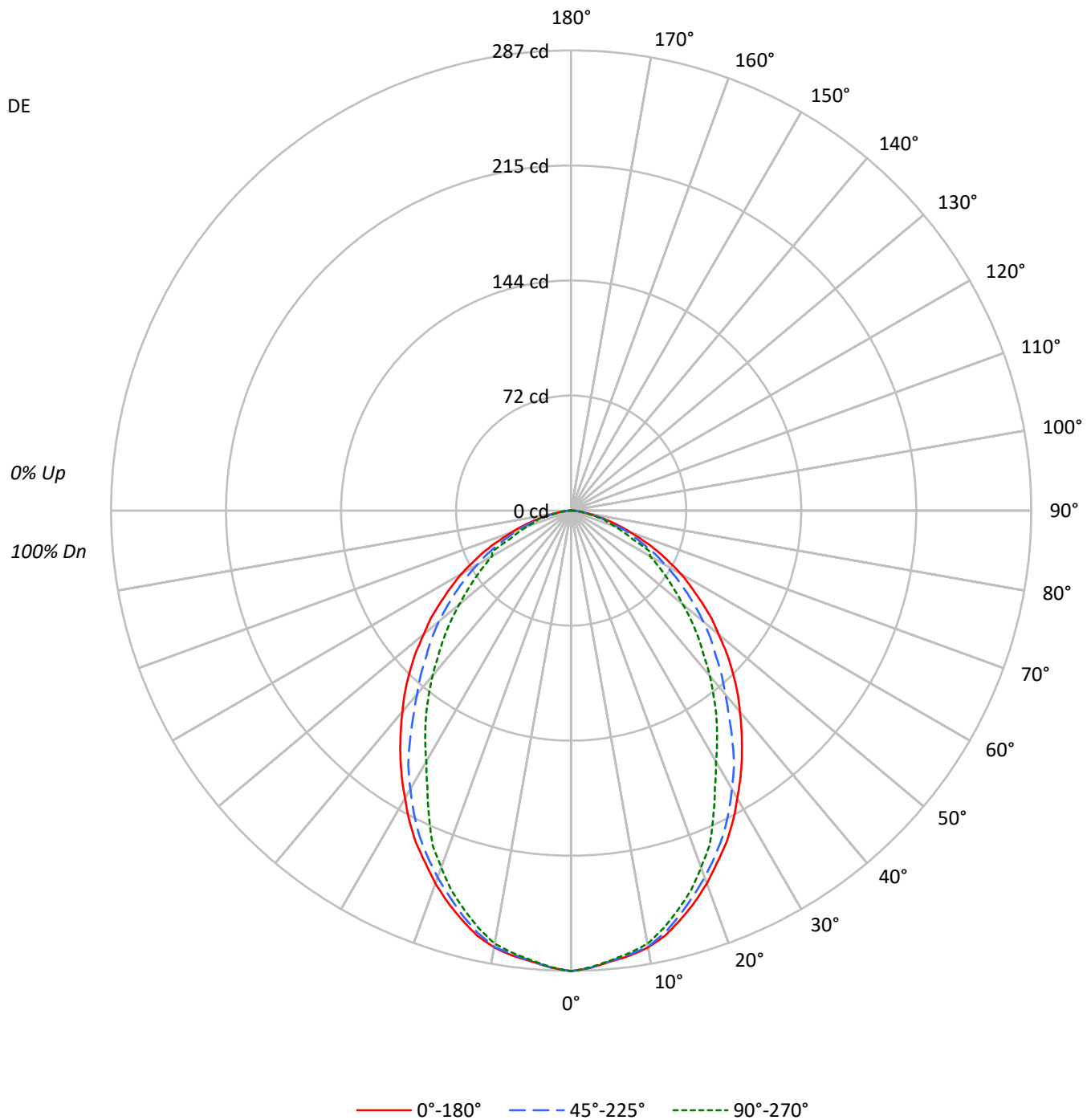
Lumens per Lamp: N/A
Luminaire Lumens: 564.0 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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	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°	3092	3092	3092
5°	3050	3047	3043
10°	3024	3020	2998
15°	2942	2913	2872
20°	2834	2789	2712
25°	2717	2659	2493
30°	2577	2493	2246
35°	2440	2305	2077
40°	2300	2101	1890
45°	2169	1941	1709
50°	2008	1802	1524
55°	1858	1633	1364
60°	1701	1460	1223
65°	1498	1279	1082
70°	1234	1117	919
75°	981	857	898
80°	657	620	576
85°	408	494	568

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2169 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.7	4.7
10°-20°	73.4	13.0
20°-30°	101.6	18.0
30°-40°	108.3	19.2
40°-50°	98.8	17.5
50°-60°	77.4	13.7
60°-70°	50.5	8.9
70°-80°	22.4	4.0
80°-90°	4.8	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°	201.7	35.8
0°-40°	310.1	55.0
0°-60°	486.4	86.2
0°-90°	564.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	564.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	287	287	287	287	287	
5°	282	282	282	282	282	27
15°	264	264	261	259	258	74
25°	229	228	224	216	210	105
35°	186	184	175	162	158	116
45°	142	140	128	117	112	110
55°	99	96	87	77	73	89
65°	59	56	50	51	42	58
75°	24	22	21	20	22	25
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	287.3	287.3	287.3	287.3	287.3
2.5°	285.3	285.3	285.3	285.0	285.0
5°	282.3	282.0	282.0	281.6	281.6
7.5°	280.0	279.7	279.3	279.0	278.3
10°	276.7	276.7	276.3	274.7	274.3
12.5°	271.4	271.0	269.7	267.4	266.7
15°	264.0	264.0	261.4	258.7	257.7
17.5°	256.1	255.7	252.4	249.8	248.4
20°	247.4	246.8	243.5	239.1	236.8
22.5°	237.8	237.8	233.8	228.2	225.8
25°	228.8	227.5	223.9	215.9	209.9
27.5°	218.5	216.5	212.6	201.3	194.3
30°	207.3	206.3	200.6	186.0	180.7
32.5°	196.6	195.0	189.0	173.7	169.4
35°	185.7	184.3	175.4	162.1	158.1
37.5°	174.7	173.0	161.7	151.1	146.1
40°	163.7	161.7	149.5	139.8	134.5
42.5°	153.4	150.8	138.8	128.5	122.6
45°	142.5	139.5	127.5	116.9	112.3
47.5°	131.5	128.9	117.9	106.9	101.6
50°	119.9	117.6	107.6	96.7	91.0
52.5°	110.3	106.6	97.0	86.0	81.4
55°	99.0	96.0	87.0	76.7	72.7
57.5°	88.7	85.7	77.4	67.8	64.4
60°	79.0	74.7	67.8	59.5	56.8
62.5°	68.4	65.1	59.1	52.1	55.5
65°	58.8	55.5	50.2	51.1	42.5
67.5°	48.2	46.5	41.8	37.2	35.9
70°	39.2	37.2	35.5	30.6	29.2
72.5°	31.2	29.2	26.9	24.2	23.2
75°	23.6	21.9	20.6	19.6	21.6
77.5°	16.3	15.6	14.6	13.6	13.3
80°	10.6	10.3	10.0	9.6	9.3
82.5°	6.3	6.3	6.3	6.3	6.3
85°	3.3	3.7	4.0	4.3	4.6
87.5°	2.0	2.0	2.3	2.7	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)