

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: P559635

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-82-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559635
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-LD4-1HI-35-UNV-82-85-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

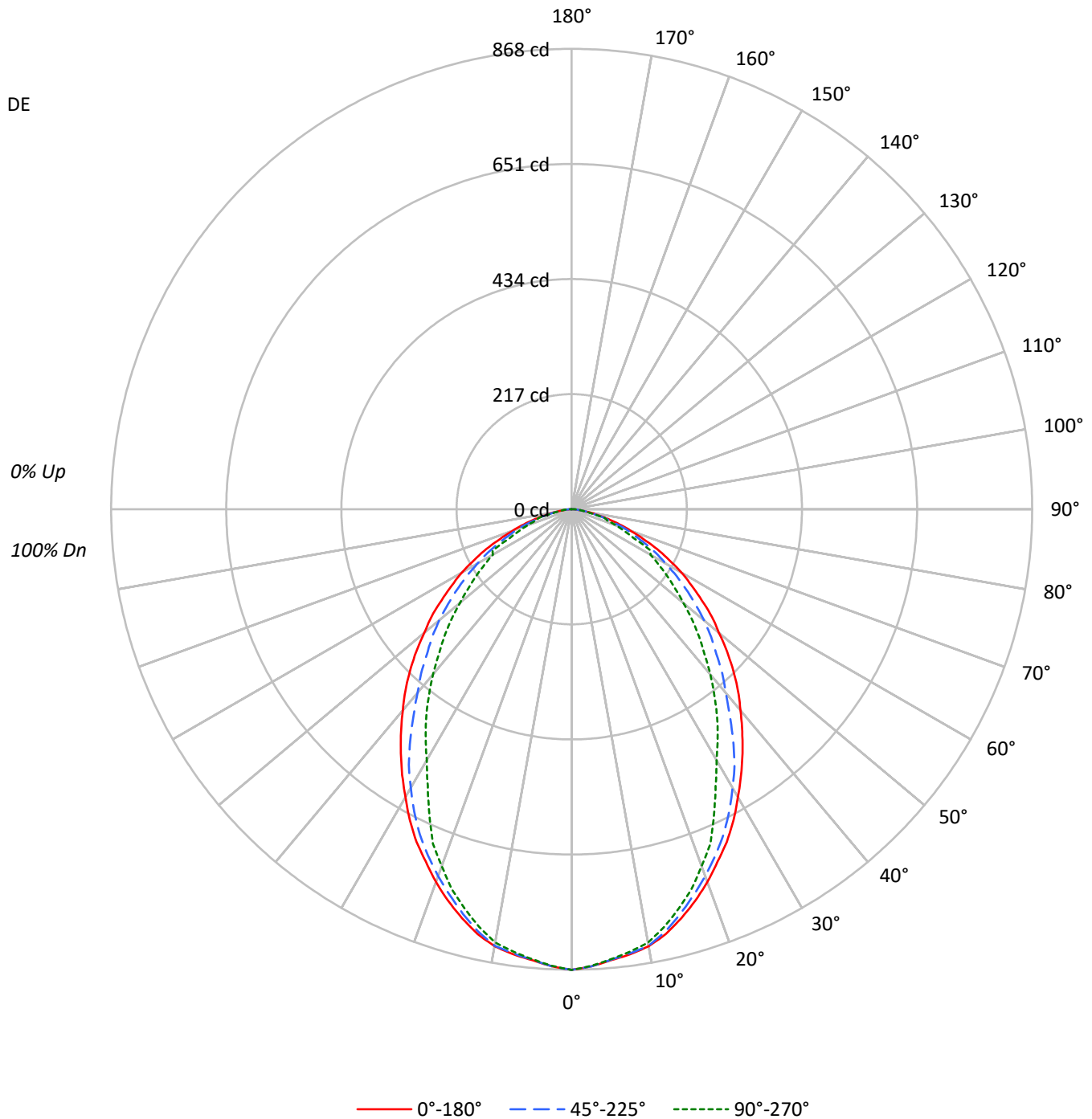
Lumens per Lamp: N/A
Luminaire Lumens: 1705.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	4674	4674	4674
5°	4611	4605	4600
10°	4571	4565	4532
15°	4447	4403	4341
20°	4284	4215	4100
25°	4108	4018	3768
30°	3893	3769	3394
35°	3688	3483	3140
40°	3478	3174	2857
45°	3278	2935	2583
50°	3035	2724	2303
55°	2807	2469	2063
60°	2573	2204	1848
65°	2263	1931	1636
70°	1865	1690	1391
75°	1483	1295	1358
80°	995	933	871
85°	618	741	871

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3278 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.8	4.7
10°-20°	221.9	13.0
20°-30°	307.2	18.0
30°-40°	327.5	19.2
40°-50°	298.8	17.5
50°-60°	234.1	13.7
60°-70°	152.6	8.9
70°-80°	67.6	4.0
80°-90°	14.5	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°	609.9	35.8
0°-40°	937.4	55.0
0°-60°	1470.3	86.2
0°-90°	1705.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1705.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	868	868	868	868	868	
5°	853	852	852	851	851	81
15°	798	798	790	782	779	224
25°	692	688	677	653	635	318
35°	561	557	530	490	478	351
45°	431	422	386	353	339	332
55°	299	290	263	232	220	268
65°	178	168	152	155	128	175
75°	71	66	62	59	65	76
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	868.5	868.5	868.5	868.5	868.5
2.5°	862.5	862.5	862.5	861.5	861.5
5°	853.4	852.4	852.4	851.4	851.4
7.5°	846.4	845.4	844.4	843.4	841.4
10°	836.4	836.4	835.4	830.4	829.3
12.5°	820.3	819.3	815.3	808.3	806.3
15°	798.2	798.2	790.2	782.2	779.1
17.5°	774.1	773.1	763.1	755.0	751.0
20°	748.0	746.0	736.0	722.9	715.9
22.5°	718.9	718.9	706.9	689.8	682.8
25°	691.8	687.8	676.7	652.6	634.6
27.5°	660.7	654.6	642.6	608.5	587.4
30°	626.5	623.5	606.4	562.3	546.2
32.5°	594.4	589.4	571.3	525.1	512.1
35°	561.3	557.2	530.1	490.0	477.9
37.5°	528.1	523.1	489.0	456.8	441.8
40°	495.0	489.0	451.8	422.7	406.6
42.5°	463.9	455.8	419.7	388.6	370.5
45°	430.7	421.7	385.6	353.4	339.4
47.5°	397.6	389.6	356.4	323.3	307.2
50°	362.5	355.4	325.3	292.2	275.1
52.5°	333.3	322.3	293.2	260.0	246.0
55°	299.2	290.2	263.1	231.9	219.9
57.5°	268.1	259.0	233.9	204.8	194.8
60°	239.0	225.9	204.8	179.7	171.7
62.5°	206.8	196.8	178.7	157.6	167.7
65°	177.7	167.7	151.6	154.6	128.5
67.5°	145.6	140.6	126.5	112.5	108.4
70°	118.5	112.5	107.4	92.4	88.4
72.5°	94.4	88.4	81.3	73.3	70.3
75°	71.3	66.3	62.3	59.2	65.3
77.5°	49.2	47.2	44.2	41.2	40.2
80°	32.1	31.1	30.1	29.1	28.1
82.5°	19.1	19.1	19.1	19.1	19.1
85°	10.0	11.0	12.0	13.1	14.1
87.5°	6.0	6.0	7.0	8.0	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)