

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: P560485

Luminaire Tested: FSR-12-2-LD4-2LO-40-UNV-93-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560485
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-LD4-2LO-40-UNV-93-86-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2234.0 lumens
Efficiency: N/A
Efficacy: 95.5 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

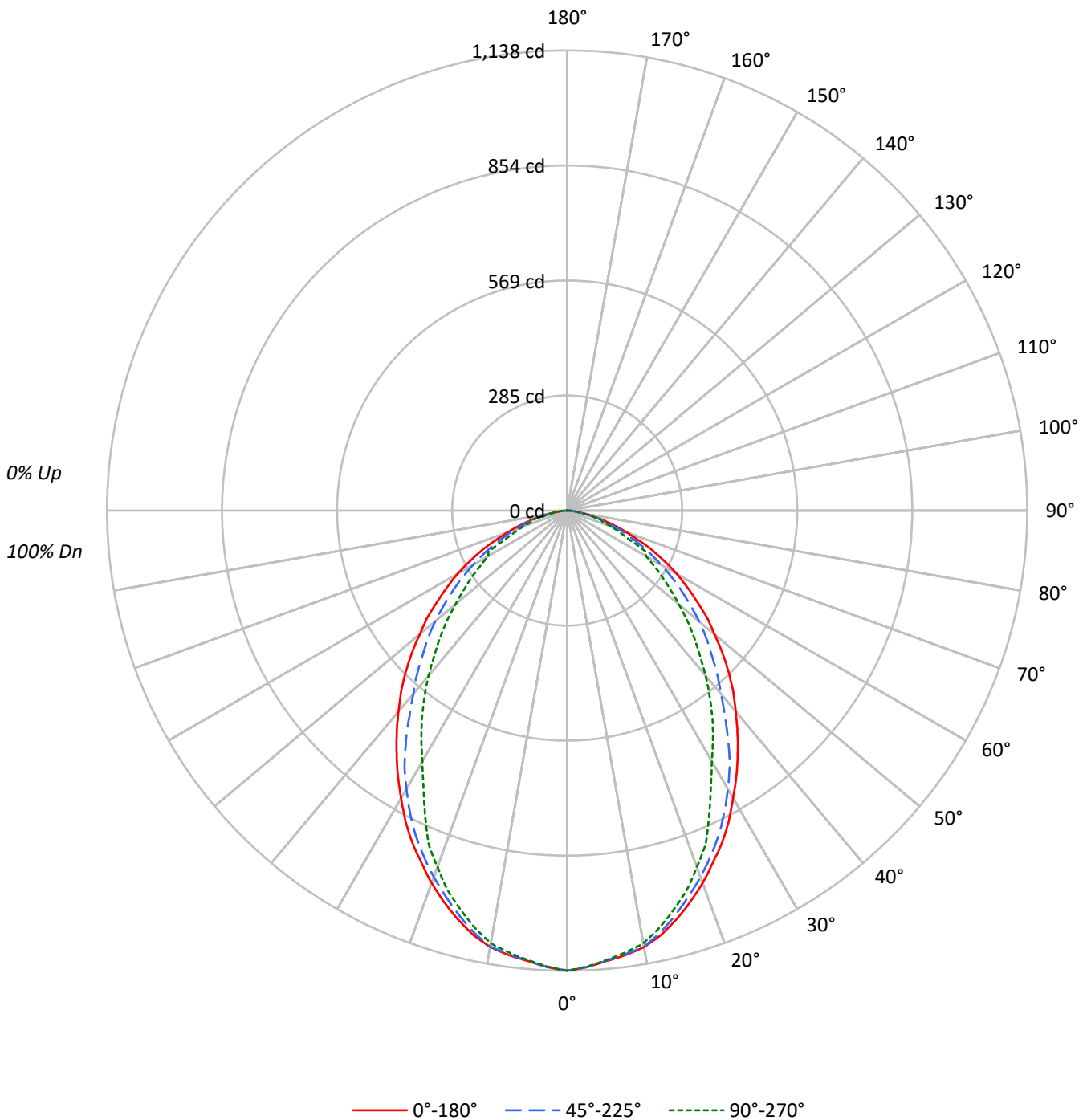
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6125	6125	6125
5°	6041	6034	6027
10°	5989	5982	5939
15°	5828	5769	5688
20°	5613	5523	5372
25°	5383	5266	4937
30°	5102	4938	4448
35°	4832	4564	4114
40°	4557	4159	3743
45°	4296	3845	3385
50°	3976	3569	3018
55°	3678	3234	2703
60°	3370	2889	2422
65°	2966	2530	2145
70°	2442	2216	1822
75°	1942	1697	1778
80°	1305	1224	1141
85°	815	976	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4296 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.9	4.7
10°-20°	290.7	13.0
20°-30°	402.5	18.0
30°-40°	429.2	19.2
40°-50°	391.5	17.5
50°-60°	306.7	13.7
60°-70°	199.9	8.9
70°-80°	88.6	4.0
80°-90°	19.0	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°	799.1	35.8
0°-40°	1228.3	55.0
0°-60°	1926.5	86.2
0°-90°	2234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2234.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1138	1138	1138	1138	1138	
5°	1118	1117	1117	1116	1116	106
15°	1046	1046	1035	1025	1021	294
25°	906	901	887	855	831	416
35°	735	730	695	642	626	460
45°	564	552	505	463	445	435
55°	392	380	345	304	288	352
65°	233	220	199	203	168	229
75°	93	87	82	78	86	100
85°	13	14	16	17	18	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1138.0	1138.0	1138.0	1138.0	1138.0
2.5°	1130.1	1130.1	1130.1	1128.8	1128.8
5°	1118.2	1116.9	1116.9	1115.6	1115.6
7.5°	1109.0	1107.7	1106.4	1105.1	1102.4
10°	1095.9	1095.9	1094.6	1088.0	1086.7
12.5°	1074.8	1073.5	1068.2	1059.0	1056.4
15°	1045.9	1045.9	1035.4	1024.8	1020.9
17.5°	1014.3	1013.0	999.8	989.3	984.0
20°	980.1	977.5	964.3	947.2	938.0
22.5°	941.9	941.9	926.2	903.8	894.6
25°	906.4	901.2	886.7	855.1	831.4
27.5°	865.6	857.8	842.0	797.2	769.6
30°	820.9	817.0	794.6	736.7	715.7
32.5°	778.8	772.2	748.6	688.0	670.9
35°	735.4	730.1	694.6	642.0	626.2
37.5°	692.0	685.4	640.7	598.6	578.9
40°	648.6	640.7	592.0	553.9	532.8
42.5°	607.8	597.3	549.9	509.1	485.4
45°	564.4	552.5	505.2	463.1	444.7
47.5°	521.0	510.4	467.0	423.6	402.6
50°	474.9	465.7	426.2	382.8	360.5
52.5°	436.8	422.3	384.1	340.7	322.3
55°	392.0	380.2	344.7	303.9	288.1
57.5°	351.3	339.4	306.5	268.4	255.2
60°	313.1	296.0	268.4	235.5	225.0
62.5°	271.0	257.9	234.2	206.5	219.7
65°	232.9	219.7	198.7	202.6	168.4
67.5°	190.8	184.2	165.8	147.3	142.1
70°	155.2	147.3	140.8	121.0	115.8
72.5°	123.7	115.8	106.6	96.0	92.1
75°	93.4	86.8	81.6	77.6	85.5
77.5°	64.5	61.8	57.9	53.9	52.6
80°	42.1	40.8	39.5	38.2	36.8
82.5°	25.0	25.0	25.0	25.0	25.0
85°	13.2	14.5	15.8	17.1	18.4
87.5°	7.9	7.9	9.2	10.5	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)