

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: P560439

Luminaire Tested: FSR-12-2-LD4-2LO-40-UNV-80-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560439
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-80-87-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2157.0 lumens
Efficiency: N/A
Efficacy: 92.2 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

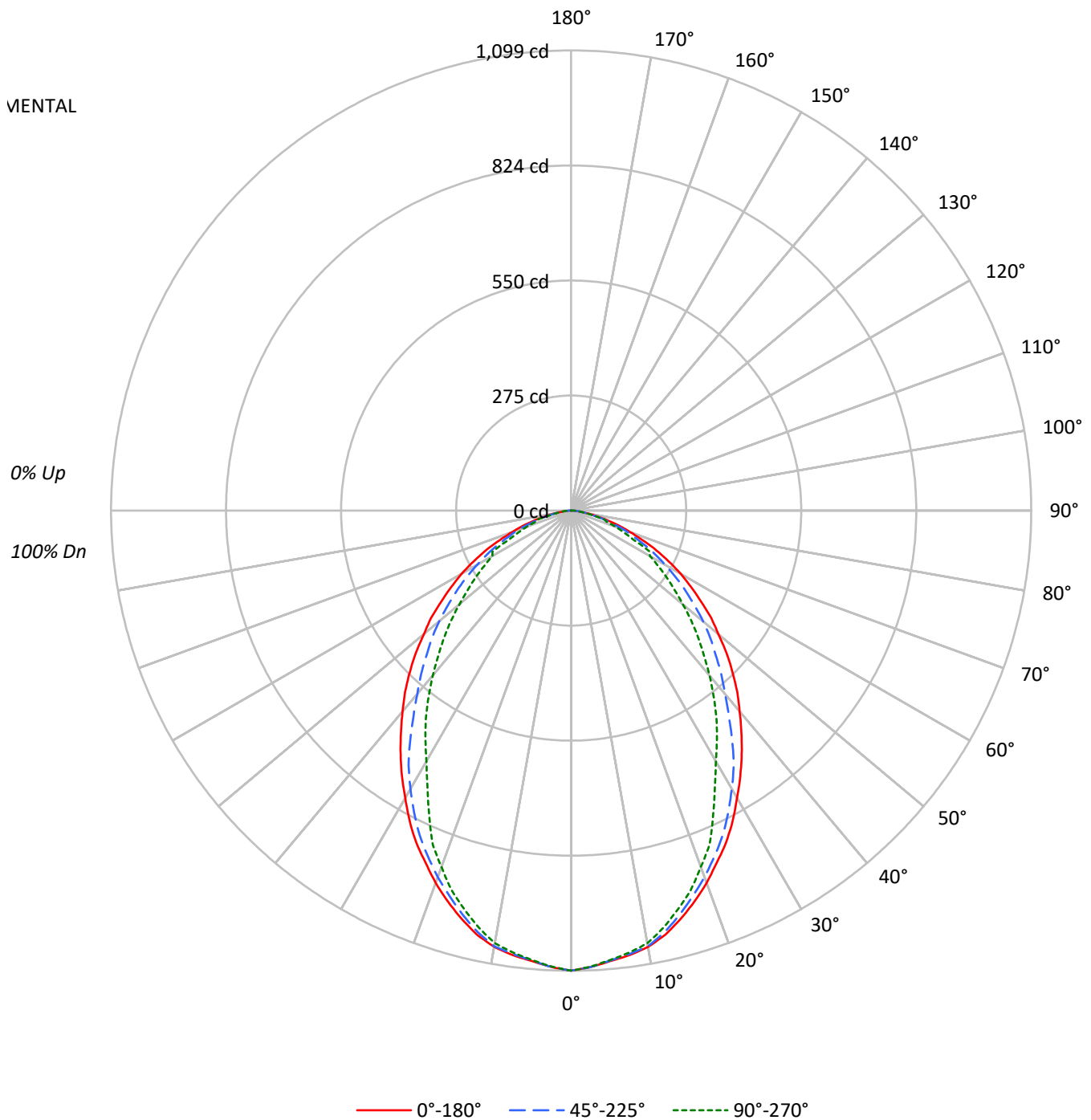
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5913	5913	5913
5°	5833	5826	5820
10°	5782	5775	5734
15°	5626	5570	5492
20°	5420	5333	5187
25°	5197	5084	4767
30°	4926	4768	4294
35°	4665	4407	3972
40°	4399	4016	3614
45°	4147	3713	3268
50°	3840	3446	2914
55°	3552	3123	2610
60°	3254	2789	2338
65°	2863	2443	2071
70°	2359	2138	1759
75°	1876	1639	1718
80°	1258	1181	1103
85°	784	939	1099

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4147 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.3	4.7
10°-20°	280.7	13.0
20°-30°	388.6	18.0
30°-40°	414.4	19.2
40°-50°	378.0	17.5
50°-60°	296.1	13.7
60°-70°	193.0	8.9
70°-80°	85.5	4.0
80°-90°	18.3	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°	771.6	35.8
0°-40°	1185.9	55.0
0°-60°	1860.1	86.2
0°-90°	2157.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2157.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1099	1099	1099	1099	1099	
5°	1080	1078	1078	1077	1077	102
15°	1010	1010	1000	990	986	284
25°	875	870	856	826	803	402
35°	710	705	671	620	605	444
45°	545	534	488	447	429	420
55°	378	367	333	293	278	340
65°	225	212	192	196	163	222
75°	90	84	79	75	83	97
85°	13	14	15	16	18	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1098.7	1098.7	1098.7	1098.7	1098.7
2.5°	1091.1	1091.1	1091.1	1089.9	1089.9
5°	1079.7	1078.4	1078.4	1077.2	1077.2
7.5°	1070.8	1069.5	1068.3	1067.0	1064.5
10°	1058.1	1058.1	1056.8	1050.5	1049.2
12.5°	1037.8	1036.5	1031.4	1022.5	1020.0
15°	1009.8	1009.8	999.7	989.5	985.7
17.5°	979.3	978.1	965.4	955.2	950.1
20°	946.3	943.8	931.1	914.6	905.7
22.5°	909.5	909.5	894.2	872.6	863.8
25°	875.2	870.1	856.1	825.6	802.8
27.5°	835.8	828.2	812.9	769.8	743.1
30°	792.6	788.8	767.2	711.3	691.0
32.5°	752.0	745.6	722.8	664.3	647.8
35°	710.1	705.0	670.7	619.9	604.6
37.5°	668.1	661.8	618.6	578.0	558.9
40°	626.2	618.6	571.6	534.8	514.4
42.5°	586.8	576.7	531.0	491.6	468.7
45°	544.9	533.5	487.8	447.1	429.3
47.5°	503.0	492.8	450.9	409.0	388.7
50°	458.6	449.7	411.6	369.6	348.0
52.5°	421.7	407.7	370.9	329.0	311.2
55°	378.5	367.1	332.8	293.4	278.2
57.5°	339.2	327.7	296.0	259.1	246.4
60°	302.3	285.8	259.1	227.4	217.2
62.5°	261.7	249.0	226.1	199.4	212.1
65°	224.8	212.1	191.8	195.6	162.6
67.5°	184.2	177.8	160.0	142.3	137.2
70°	149.9	142.3	135.9	116.9	111.8
72.5°	119.4	111.8	102.9	92.7	88.9
75°	90.2	83.8	78.8	74.9	82.6
77.5°	62.2	59.7	55.9	52.1	50.8
80°	40.6	39.4	38.1	36.8	35.6
82.5°	24.1	24.1	24.1	24.1	24.1
85°	12.7	14.0	15.2	16.5	17.8
87.5°	7.6	7.6	8.9	10.2	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)