

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: P590393

Luminaire Tested: FSR-24-2-LD4-2STD-50-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590393
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-2STD-50-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3384.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

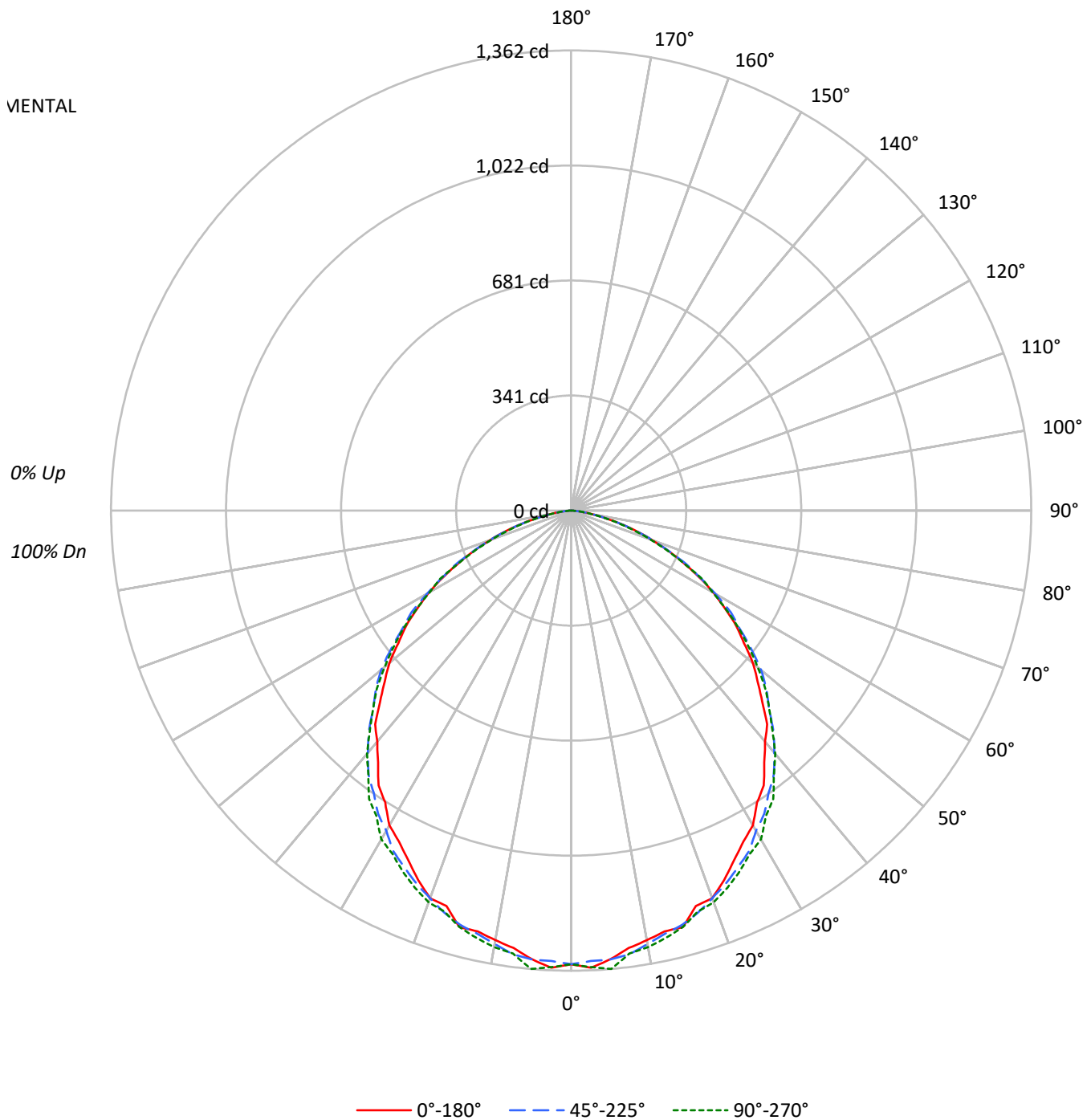
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75					73				
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64					62				
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43					41				
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38					36				
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34					32				
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31					29				
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3613	3613	3613
5°	3601	3603	3679
10°	3528	3559	3584
15°	3556	3537	3556
20°	3496	3496	3533
25°	3388	3463	3501
30°	3342	3401	3491
35°	3263	3349	3424
40°	3136	3287	3302
45°	3041	3150	3154
50°	2941	3075	3015
55°	2803	2857	2837
60°	2621	2647	2599
65°	2337	2397	2320
70°	2005	2012	1956
75°	1588	1585	1523
80°	1065	1034	993
85°	577	571	534

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 3231 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.3	3.7
10°-20°	357.9	10.6
20°-30°	536.3	15.8
30°-40°	635.6	18.8
40°-50°	636.8	18.8
50°-60°	540.5	16.0
60°-70°	364.4	10.8
70°-80°	160.1	4.7
80°-90°	26.0	0.8
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°	1020.5	30.2
0°-40°	1656.1	48.9
0°-60°	2833.4	83.7
0°-90°	3384.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3384.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1343	1343	1343	1343	1343	
5°	1333	1330	1334	1330	1362	126
15°	1276	1262	1270	1276	1277	356
25°	1141	1148	1166	1182	1179	528
35°	993	996	1019	1043	1042	617
45°	799	814	828	849	829	618
55°	597	593	609	605	605	531
65°	367	362	376	362	364	365
75°	153	150	152	142	146	164
85°	19	18	18	18	17	27
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1342.7	1342.7	1342.7	1342.7	1342.7
2.5°	1354.3	1344.1	1334.5	1345.6	1352.4
5°	1333.2	1330.0	1333.7	1329.7	1361.8
7.5°	1305.8	1317.7	1324.7	1320.3	1322.2
10°	1291.2	1287.0	1302.5	1313.2	1311.7
12.5°	1275.6	1281.8	1282.7	1294.3	1295.4
15°	1276.5	1261.7	1269.5	1276.1	1276.6
17.5°	1226.9	1242.8	1248.2	1263.3	1244.6
20°	1220.8	1209.2	1220.8	1236.2	1233.8
22.5°	1183.5	1170.5	1195.5	1209.2	1208.3
25°	1141.2	1147.5	1166.2	1181.5	1179.0
27.5°	1104.1	1111.4	1138.1	1159.1	1145.6
30°	1075.5	1071.9	1094.4	1113.2	1123.6
32.5°	1024.4	1037.6	1063.9	1082.5	1072.6
35°	993.4	996.3	1019.4	1042.9	1042.3
37.5°	939.1	952.8	985.2	991.8	985.7
40°	892.8	906.5	935.8	942.9	940.0
42.5°	858.7	861.1	886.2	894.4	881.4
45°	799.2	814.1	827.6	849.0	828.8
47.5°	748.6	755.5	784.6	790.4	779.8
50°	702.6	705.1	734.4	727.3	720.3
52.5°	644.9	655.1	671.6	670.2	662.1
55°	597.4	593.4	609.0	604.9	604.7
57.5°	540.4	547.3	560.1	553.5	543.0
60°	487.0	487.1	491.8	484.4	483.0
62.5°	427.5	429.6	430.6	421.4	436.4
65°	367.0	362.2	376.4	362.0	364.4
67.5°	311.4	313.8	312.4	303.4	306.9
70°	254.8	258.0	255.7	245.5	248.6
72.5°	203.2	199.4	201.8	189.0	194.9
75°	152.7	149.6	152.4	141.6	146.5
77.5°	104.0	106.4	104.7	99.0	102.3
80°	68.7	66.7	66.7	63.5	64.1
82.5°	40.0	38.1	37.6	36.6	38.1
85°	18.7	18.2	18.5	18.0	17.3
87.5°	6.8	6.9	6.9	6.6	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)