

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P308392

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CA125-W2A-U-6500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P308392
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-24HE-UNV-L82765-RDP-CA125-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 3000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1530.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

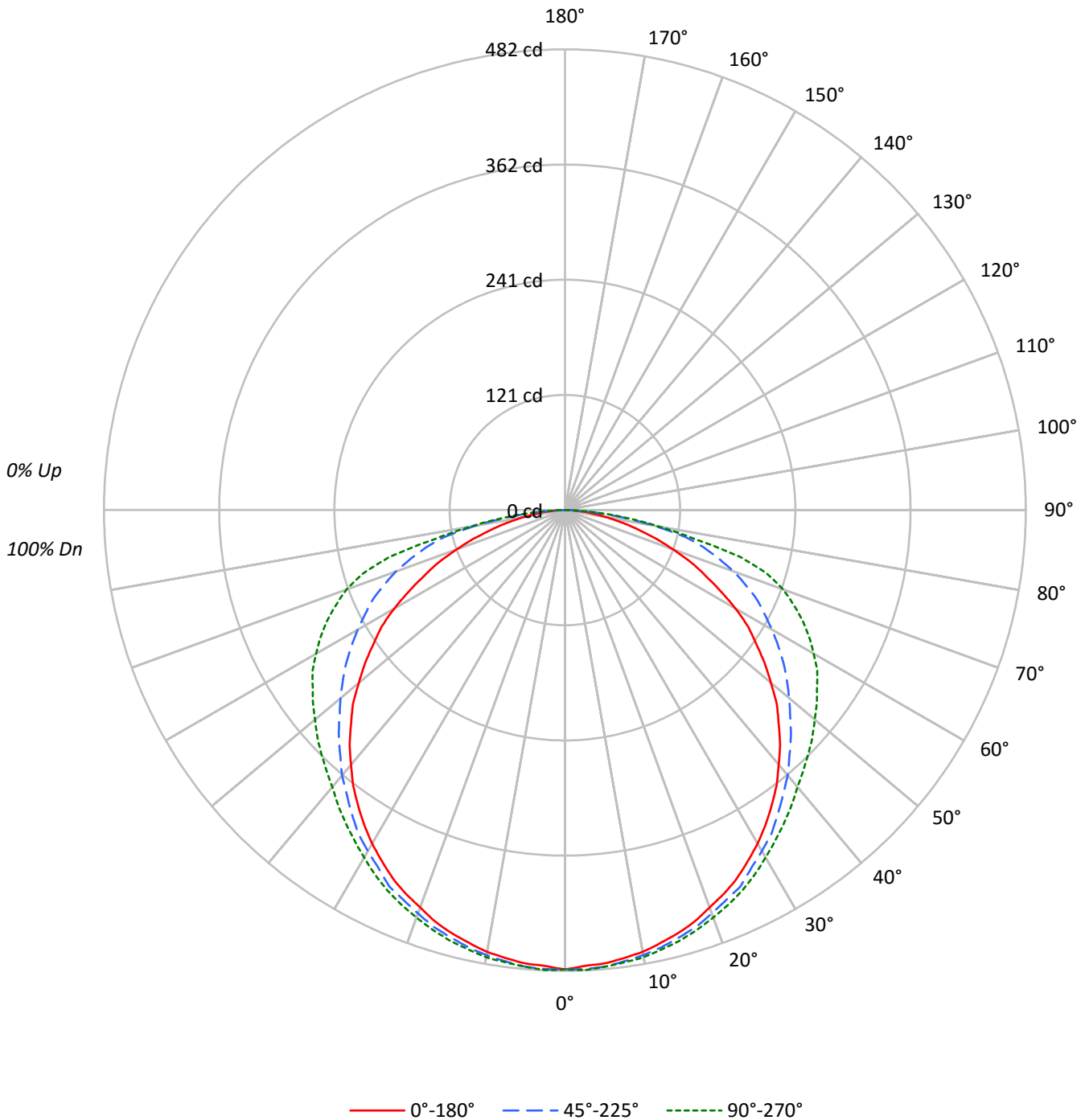
Input Watts (W): 19.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1293	1293	1293
5°	1286	1295	1295
10°	1282	1292	1298
15°	1276	1289	1298
20°	1267	1286	1299
25°	1263	1290	1303
30°	1252	1280	1304
35°	1239	1276	1313
40°	1222	1273	1329
45°	1204	1272	1371
50°	1178	1281	1428
55°	1146	1309	1510
60°	1109	1345	1617
65°	1032	1412	1748
70°	947	1479	1913
75°	831	1556	1978
80°	714	1483	1553
85°	627	1078	1183



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	3.0
10°-20°	130.5	8.5
20°-30°	199.1	13.0
30°-40°	243.2	15.9
40°-50°	260.0	17.0
50°-60°	250.9	16.4
60°-70°	216.0	14.1
70°-80°	146.2	9.6
80°-90°	38.6	2.5
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°	375.1	24.5
0°-40°	618.3	40.4
0°-60°	1129.2	73.8
0°-90°	1530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1530.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	481	481	481	481	481	
5°	476	477	480	480	480	45
15°	458	459	463	465	466	129
25°	425	428	434	437	439	196
35°	377	380	388	396	400	236
45°	316	322	334	351	360	244
55°	244	252	279	307	322	219
65°	162	178	222	257	275	161
75°	80	106	150	180	190	86
85°	20	28	35	36	38	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	480.6	480.6	480.6	480.6	480.6
2.5°	477.2	478.3	480.6	480.6	481.7
5°	476.1	477.2	479.5	479.5	479.5
7.5°	472.7	473.8	476.1	477.2	477.2
10°	469.3	470.5	472.7	473.8	475.0
12.5°	463.7	464.8	468.2	470.5	470.5
15°	458.1	459.2	462.6	464.8	466.0
17.5°	451.3	453.6	457.0	459.2	460.3
20°	442.3	444.6	449.1	452.5	453.6
22.5°	434.5	436.7	441.2	444.6	446.8
25°	425.4	427.7	434.5	436.7	439.0
27.5°	414.2	416.4	422.1	426.6	430.0
30°	402.9	405.2	411.9	417.6	419.8
32.5°	390.6	393.9	401.8	406.3	409.7
35°	377.1	380.4	388.3	396.2	399.6
37.5°	363.5	366.9	374.8	384.9	389.4
40°	347.8	352.3	362.4	375.9	378.2
42.5°	333.2	338.8	347.8	363.5	369.2
45°	316.3	321.9	334.3	351.2	360.2
47.5°	300.5	306.1	319.6	339.9	351.2
50°	281.4	289.3	306.1	329.8	341.0
52.5°	263.4	270.1	292.6	318.5	332.0
55°	244.2	252.1	279.1	307.3	321.9
57.5°	227.4	234.1	264.5	296.0	312.9
60°	206.0	215.0	249.9	283.6	300.5
62.5°	183.5	197.0	235.2	270.1	288.1
65°	162.1	177.8	221.7	256.6	274.6
67.5°	142.9	159.8	204.8	242.0	258.9
70°	120.4	141.8	188.0	224.0	243.1
72.5°	100.2	123.8	168.8	204.8	221.7
75°	79.9	105.8	149.7	180.1	190.2
77.5°	61.9	86.7	128.3	137.3	138.4
80°	46.1	68.7	95.7	96.8	100.2
82.5°	31.5	48.4	61.9	67.5	68.7
85°	20.3	28.1	34.9	36.0	38.3
87.5°	9.0	10.1	12.4	11.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)