

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: P308123

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CP125-W2A-U-2700K**

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: P308123  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
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-HRP-CP125-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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: 1529.0 lumens  
Efficiency: N/A  
Efficacy: 80.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

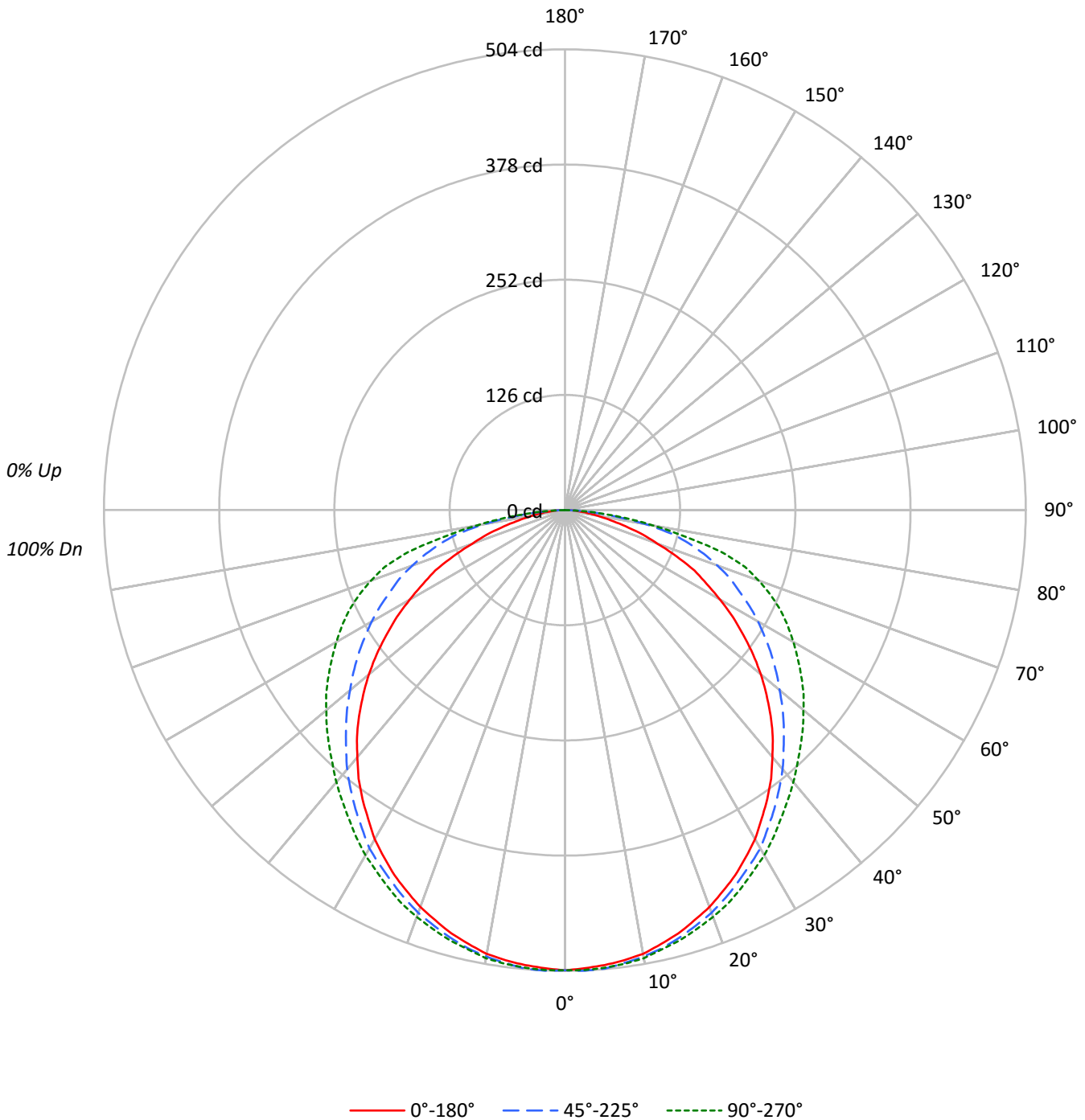
Input Watts (W): 18.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1355	1355	1355
5°	1350	1360	1357
10°	1347	1355	1360
15°	1336	1349	1357
20°	1323	1342	1356
25°	1309	1332	1355
30°	1292	1328	1355
35°	1267	1312	1353
40°	1240	1301	1365
45°	1211	1288	1388
50°	1171	1284	1425
55°	1118	1294	1480
60°	1054	1313	1552
65°	995	1339	1658
70°	850	1397	1776
75°	712	1455	1845
80°	583	1406	1539
85°	506	1044	1133



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.7	3.1
10°-20°	136.5	8.9
20°-30°	206.9	13.5
30°-40°	249.8	16.3
40°-50°	262.5	17.2
50°-60°	247.0	16.2
60°-70°	205.9	13.5
70°-80°	136.4	8.9
80°-90°	36.4	2.4
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°	391.1	25.6
0°-40°	640.9	41.9
0°-60°	1150.3	75.2
0°-90°	1529.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1529.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	504	504	504	504	504	
5°	500	501	504	504	502	47
15°	479	481	484	486	487	135
25°	441	444	448	454	456	203
35°	386	390	399	408	412	241
45°	318	323	338	356	365	245
55°	238	249	276	304	315	213
65°	156	170	210	245	260	152
75°	68	96	140	169	178	74
85°	16	25	34	37	37	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	503.5	503.5	503.5	503.5	503.5
2.5°	501.6	502.5	504.4	504.4	503.5
5°	499.6	500.6	503.5	503.5	502.5
7.5°	496.7	497.7	499.6	501.6	500.6
10°	492.9	493.8	495.8	497.7	497.7
12.5°	486.1	487.1	490.9	491.9	491.9
15°	479.4	481.3	484.2	486.1	487.1
17.5°	470.7	472.6	476.5	480.3	480.3
20°	462.0	463.9	468.8	472.6	473.6
22.5°	451.4	454.3	459.1	463.9	465.9
25°	440.8	443.7	448.5	454.3	456.2
27.5°	428.2	431.1	437.9	444.6	445.6
30°	415.7	418.6	427.3	433.1	436.0
32.5°	400.3	404.1	412.8	421.5	424.4
35°	385.8	389.7	399.3	408.0	411.9
37.5°	370.4	374.2	384.8	395.5	400.3
40°	353.0	357.8	370.4	382.0	388.7
42.5°	336.6	341.4	354.0	369.4	376.2
45°	318.3	323.1	338.5	355.9	364.6
47.5°	299.0	304.8	323.1	344.3	353.0
50°	279.7	286.5	306.7	330.8	340.5
52.5°	259.5	268.1	291.3	317.3	328.9
55°	238.2	248.8	275.9	303.8	315.4
57.5°	218.0	227.6	259.5	289.4	301.9
60°	195.8	208.3	244.0	274.9	288.4
62.5°	174.6	188.1	227.6	260.4	274.9
65°	156.3	169.8	210.3	245.0	260.4
67.5°	132.1	150.5	195.8	228.6	244.0
70°	108.0	133.1	177.5	211.2	225.7
72.5°	89.7	113.8	159.1	192.9	206.4
75°	68.5	95.5	139.9	168.8	177.5
77.5°	51.1	79.1	119.6	134.1	135.0
80°	37.6	60.8	90.7	95.5	99.3
82.5°	26.0	42.4	58.8	64.6	66.6
85°	16.4	25.1	33.8	36.7	36.7
87.5°	8.7	9.6	11.6	11.6	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)