

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: P313045

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-HRP-CA125-W2A-U-3000K**

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: P313045  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30HE-UNV-L83050-HRP-CA125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 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: 2053.0 lumens  
Efficiency: N/A  
Efficacy: 97.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

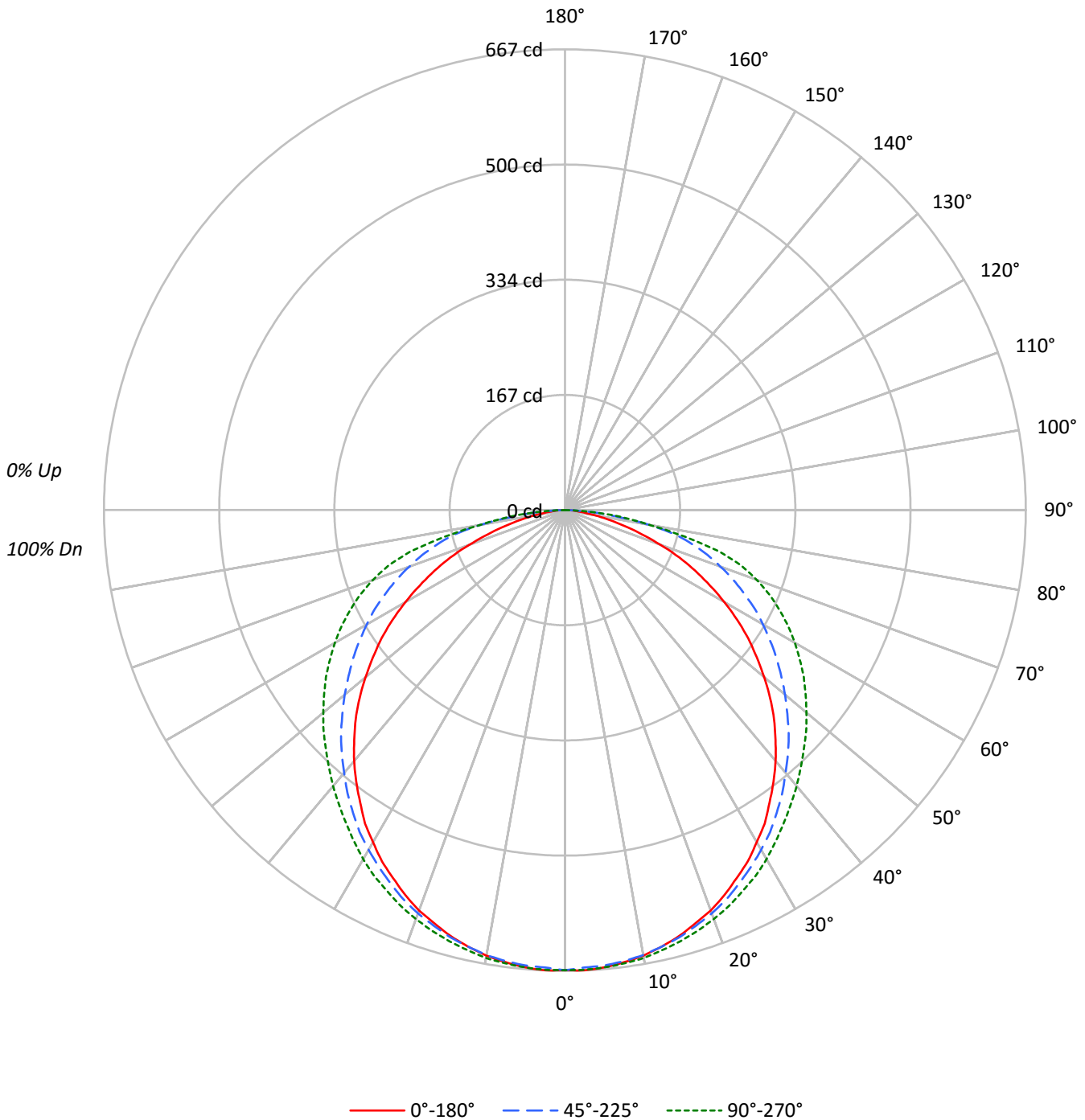
Input Watts (W): 21.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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	24	35	29	24	23

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

	0°	45°	90°
0°	896	896	896
5°	897	894	897
10°	895	894	900
15°	890	892	900
20°	884	890	902
25°	873	886	903
30°	863	883	907
35°	848	878	908
40°	833	873	916
45°	814	872	930
50°	788	871	955
55°	760	877	990
60°	717	890	1034
65°	662	911	1092
70°	578	943	1163
75°	469	992	1202
80°	346	972	972
85°	266	716	809



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.1	3.1
10°-20°	181.2	8.8
20°-30°	275.9	13.4
30°-40°	334.9	16.3
40°-50°	353.9	17.2
50°-60°	333.9	16.3
60°-70°	277.6	13.5
70°-80°	182.7	8.9
80°-90°	49.8	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°	520.2	25.3
0°-40°	855.1	41.7
0°-60°	1542.9	75.2
0°-90°	2053.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2053.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	666	666	666	666	666	
5°	664	664	662	664	664	63
15°	639	640	640	646	646	180
25°	588	591	596	607	608	271
35°	516	523	535	548	553	323
45°	428	437	458	480	489	330
55°	324	338	374	409	422	289
65°	208	232	286	328	343	206
75°	90	132	191	226	231	97
85°	17	38	46	52	52	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	666.1	666.1	666.1	666.1	666.1
2.5°	667.0	666.1	662.7	666.1	666.1
5°	664.4	664.4	661.8	664.4	664.4
7.5°	660.1	660.1	658.4	661.8	661.8
10°	654.9	654.9	654.1	658.4	658.4
12.5°	647.2	648.0	647.2	652.3	652.3
15°	638.6	639.5	640.3	646.3	646.3
17.5°	627.4	629.1	630.9	637.7	638.6
20°	617.1	618.0	621.4	629.1	630.0
22.5°	603.4	605.9	610.2	618.0	620.5
25°	587.9	591.3	596.5	606.8	608.5
27.5°	573.3	575.9	582.7	593.9	597.3
30°	555.2	559.5	568.1	579.3	583.6
32.5°	538.0	542.3	552.6	564.7	568.1
35°	516.5	522.6	534.6	548.3	552.6
37.5°	495.9	501.9	516.5	532.0	537.2
40°	474.4	481.3	496.8	514.8	521.7
42.5°	451.2	460.7	477.9	497.6	505.4
45°	428.0	436.6	458.1	480.4	489.0
47.5°	403.1	413.4	436.6	463.3	473.6
50°	376.5	389.3	416.0	445.2	456.4
52.5°	349.8	364.4	394.5	427.2	439.2
55°	324.0	337.8	373.9	409.1	422.0
57.5°	295.7	312.9	352.4	390.2	403.1
60°	266.4	285.3	330.9	370.4	384.2
62.5°	237.2	258.7	310.3	349.8	364.4
65°	208.0	232.1	286.2	328.3	342.9
67.5°	179.6	206.3	263.9	306.0	320.6
70°	147.0	180.5	239.8	281.1	295.7
72.5°	116.9	155.6	216.6	255.3	268.2
75°	90.2	131.5	190.8	226.0	231.2
77.5°	66.2	107.4	164.2	176.2	177.1
80°	44.7	85.9	125.5	123.8	125.5
82.5°	29.2	64.5	79.1	88.5	89.4
85°	17.2	37.8	46.4	51.6	52.4
87.5°	8.6	12.9	16.3	17.2	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)