

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: P309239

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-HRP-CA125-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: P309239  
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: 24FCZ2-35HE-UNV-L82765-HRP-CA125-W2A-U-2700K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 2700K 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: 2232.0 lumens  
Efficiency: N/A  
Efficacy: 85.8 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

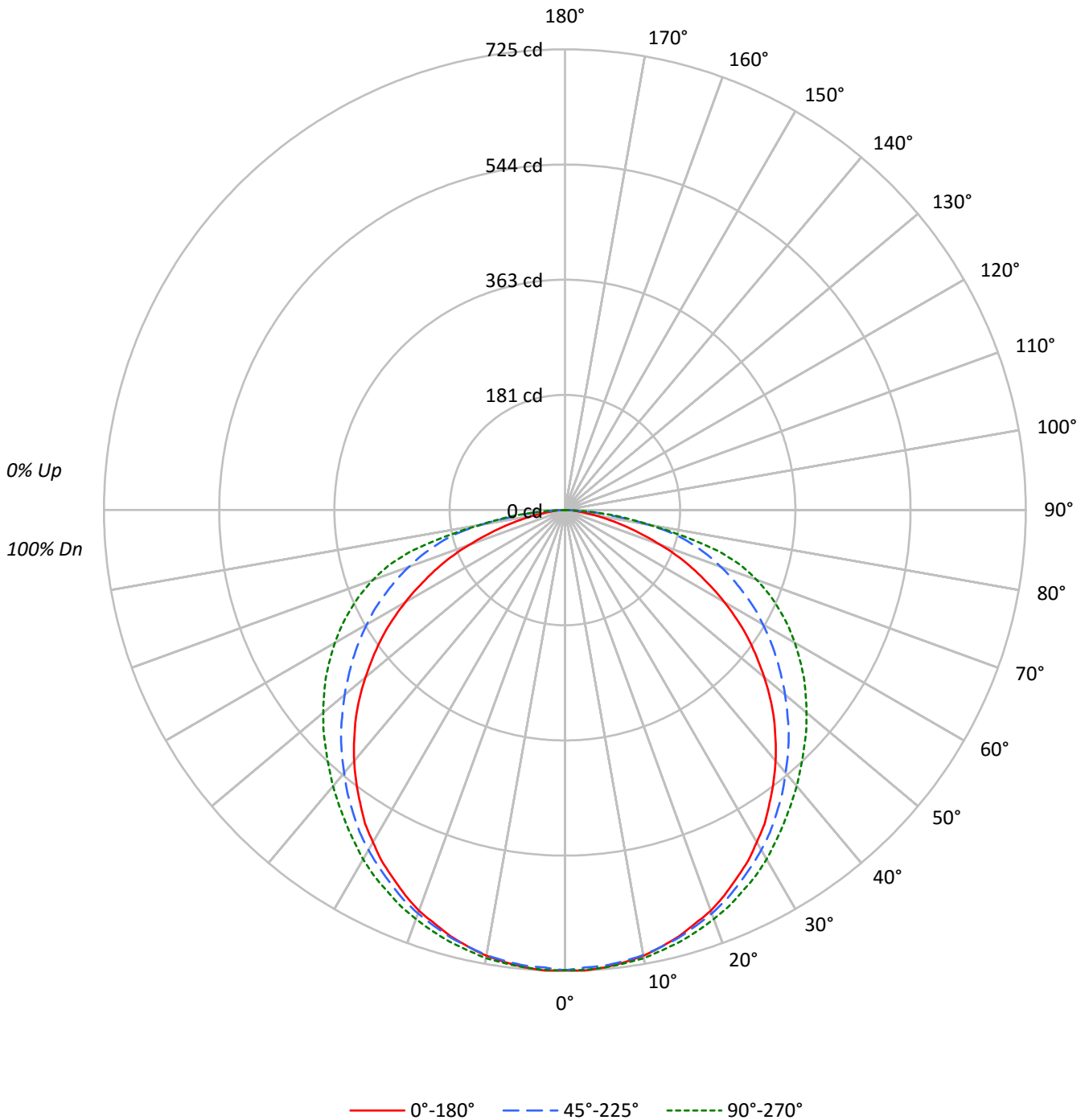
Input Watts (W): 26  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	974	974	974
5°	976	972	976
10°	973	972	978
15°	967	970	979
20°	961	967	981
25°	949	963	982
30°	938	960	986
35°	922	955	987
40°	906	949	996
45°	885	948	1012
50°	857	947	1039
55°	826	954	1076
60°	780	968	1124
65°	720	991	1187
70°	629	1026	1264
75°	510	1078	1307
80°	377	1057	1057
85°	289	780	880



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.6	3.1
10°-20°	197.0	8.8
20°-30°	299.9	13.4
30°-40°	364.2	16.3
40°-50°	384.7	17.2
50°-60°	363.0	16.3
60°-70°	301.9	13.5
70°-80°	198.6	8.9
80°-90°	54.1	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°	565.5	25.3
0°-40°	929.7	41.7
0°-60°	1677.4	75.2
0°-90°	2232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2232.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	722	722	720	722	722	69
15°	694	695	696	703	703	196
25°	639	643	648	660	662	295
35°	562	568	581	596	601	352
45°	465	475	498	522	532	358
55°	352	367	406	445	459	314
65°	226	252	311	357	373	224
75°	98	143	207	246	251	106
85°	19	41	50	56	57	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	724.2	724.2	724.2	724.2	724.2
2.5°	725.1	724.2	720.4	724.2	724.2
5°	722.3	722.3	719.5	722.3	722.3
7.5°	717.6	717.6	715.8	719.5	719.5
10°	712.0	712.0	711.1	715.8	715.8
12.5°	703.6	704.6	703.6	709.2	709.2
15°	694.3	695.2	696.1	702.7	702.7
17.5°	682.1	684.0	685.9	693.3	694.3
20°	670.9	671.8	675.6	684.0	684.9
22.5°	656.0	658.8	663.4	671.8	674.6
25°	639.1	642.9	648.5	659.7	661.6
27.5°	623.3	626.1	633.5	645.7	649.4
30°	603.6	608.3	617.7	629.8	634.5
32.5°	584.9	589.6	600.8	613.9	617.7
35°	561.6	568.1	581.2	596.2	600.8
37.5°	539.2	545.7	561.6	578.4	584.0
40°	515.8	523.3	540.1	559.7	567.2
42.5°	490.6	500.8	519.5	541.0	549.4
45°	465.3	474.7	498.0	522.3	531.7
47.5°	438.2	449.5	474.7	503.7	514.9
50°	409.3	423.3	452.3	484.0	496.2
52.5°	380.3	396.2	428.9	464.4	477.5
55°	352.3	367.2	406.5	444.8	458.8
57.5°	321.4	340.1	383.1	424.2	438.2
60°	289.7	310.2	359.8	402.7	417.7
62.5°	257.9	281.3	337.3	380.3	396.2
65°	226.1	252.3	311.2	356.9	372.8
67.5°	195.3	224.3	286.9	332.7	348.5
70°	159.8	196.2	260.7	305.6	321.4
72.5°	127.1	169.1	235.5	277.5	291.5
75°	98.1	143.0	207.4	245.8	251.4
77.5°	72.0	116.8	178.5	191.6	192.5
80°	48.6	93.4	136.4	134.6	136.4
82.5°	31.8	70.1	86.0	96.2	97.2
85°	18.7	41.1	50.5	56.1	57.0
87.5°	9.3	14.0	17.8	18.7	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)