

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: P309240

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-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: P309240  
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-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**

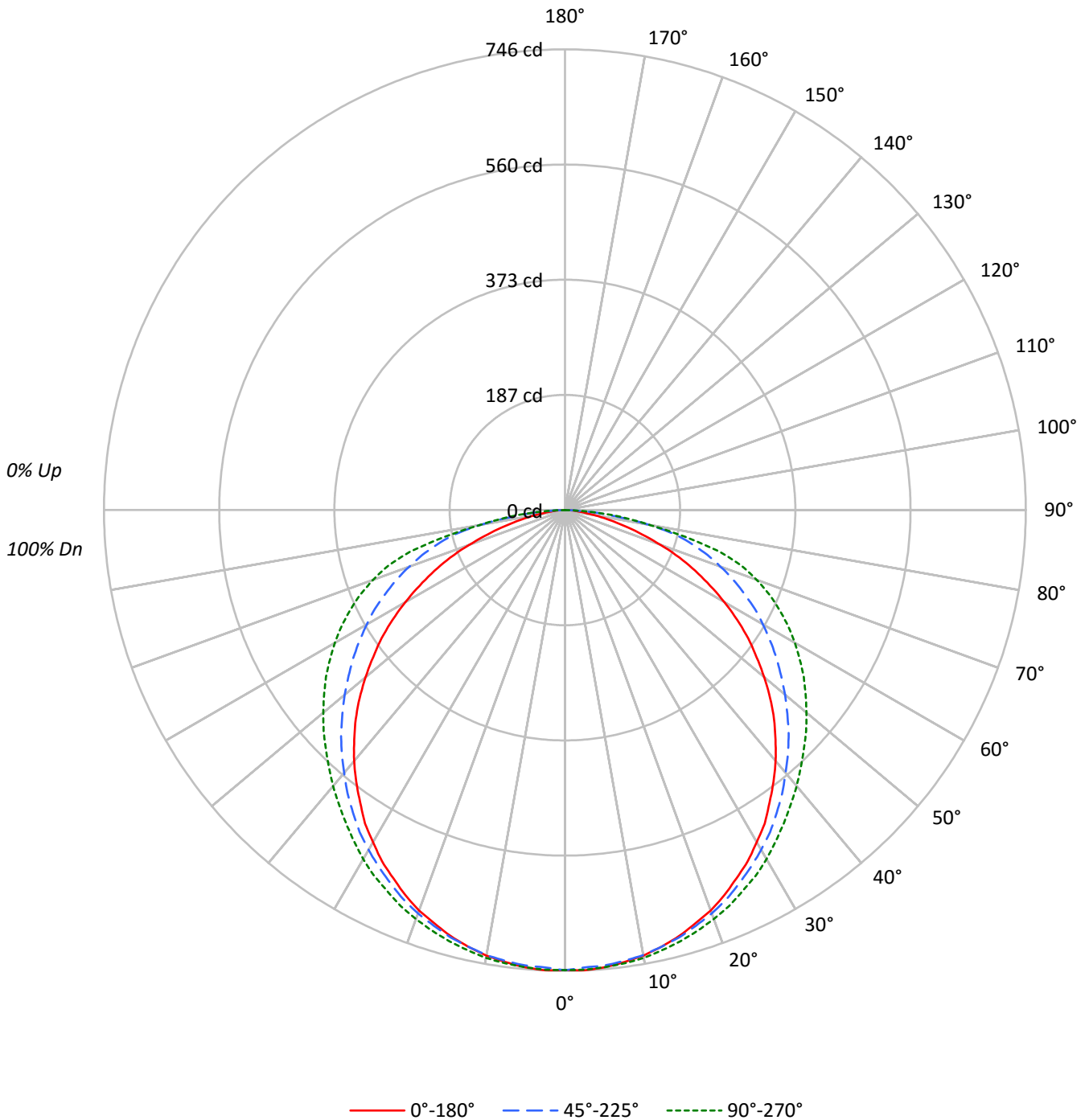
Lumens per Lamp: N/A  
Luminaire Lumens: 2296.0 lumens  
Efficiency: N/A  
Efficacy: 89.0 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	1002	1002	1002
5°	1004	1000	1004
10°	1001	999	1006
15°	995	997	1007
20°	988	995	1009
25°	976	990	1010
30°	965	987	1014
35°	949	982	1015
40°	932	976	1025
45°	911	975	1041
50°	881	974	1068
55°	850	981	1107
60°	802	996	1156
65°	741	1019	1221
70°	647	1055	1301
75°	525	1109	1344
80°	387	1087	1087
85°	296	801	905



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.6	3.1
10°-20°	202.6	8.8
20°-30°	308.5	13.4
30°-40°	374.6	16.3
40°-50°	395.8	17.2
50°-60°	373.5	16.3
60°-70°	310.5	13.5
70°-80°	204.3	8.9
80°-90°	55.7	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°	581.7	25.3
0°-40°	956.3	41.7
0°-60°	1725.5	75.2
0°-90°	2296.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2296.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	745	745	745	745	745	
5°	743	743	740	743	743	71
15°	714	715	716	723	723	201
25°	658	661	667	679	680	303
35°	578	584	598	613	618	362
45°	479	488	512	537	547	369
55°	362	378	418	458	472	323
65°	233	260	320	367	384	230
75°	101	147	213	253	259	109
85°	19	42	52	58	59	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	744.9	744.9	744.9	744.9	744.9
2.5°	745.9	744.9	741.1	744.9	744.9
5°	743.0	743.0	740.1	743.0	743.0
7.5°	738.2	738.2	736.3	740.1	740.1
10°	732.4	732.4	731.5	736.3	736.3
12.5°	723.8	724.8	723.8	729.6	729.6
15°	714.2	715.1	716.1	722.8	722.8
17.5°	701.7	703.6	705.5	713.2	714.2
20°	690.1	691.1	695.0	703.6	704.6
22.5°	674.8	677.7	682.5	691.1	694.0
25°	657.5	661.3	667.1	678.6	680.5
27.5°	641.1	644.0	651.7	664.2	668.0
30°	620.9	625.7	635.4	647.9	652.7
32.5°	601.7	606.5	618.1	631.5	635.4
35°	577.7	584.4	597.9	613.3	618.1
37.5°	554.6	561.3	577.7	595.0	600.8
40°	530.6	538.3	555.6	575.8	583.5
42.5°	504.6	515.2	534.4	556.5	565.2
45°	478.7	488.3	512.3	537.3	546.9
47.5°	450.8	462.3	488.3	518.1	529.6
50°	421.0	435.4	465.2	497.9	510.4
52.5°	391.2	407.6	441.2	477.7	491.2
55°	362.4	377.8	418.1	457.5	472.0
57.5°	330.7	349.9	394.1	436.4	450.8
60°	298.0	319.1	370.1	414.3	429.7
62.5°	265.3	289.3	347.0	391.2	407.6
65°	232.6	259.5	320.1	367.2	383.5
67.5°	200.9	230.7	295.1	342.2	358.5
70°	164.4	201.9	268.2	314.3	330.7
72.5°	130.7	174.0	242.2	285.5	299.9
75°	100.9	147.1	213.4	252.8	258.6
77.5°	74.0	120.2	183.6	197.0	198.0
80°	50.0	96.1	140.3	138.4	140.3
82.5°	32.7	72.1	88.4	99.0	100.0
85°	19.2	42.3	51.9	57.7	58.6
87.5°	9.6	14.4	18.3	19.2	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)