

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: P313469

Luminaire Tested: **24FCZ2-35HE-UNV-L83050-RDP-CA08-W2A-U-5000K**

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: P313469  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
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-L83050-RDP-CA08-W2A-U-5000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (336) 5000K 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**

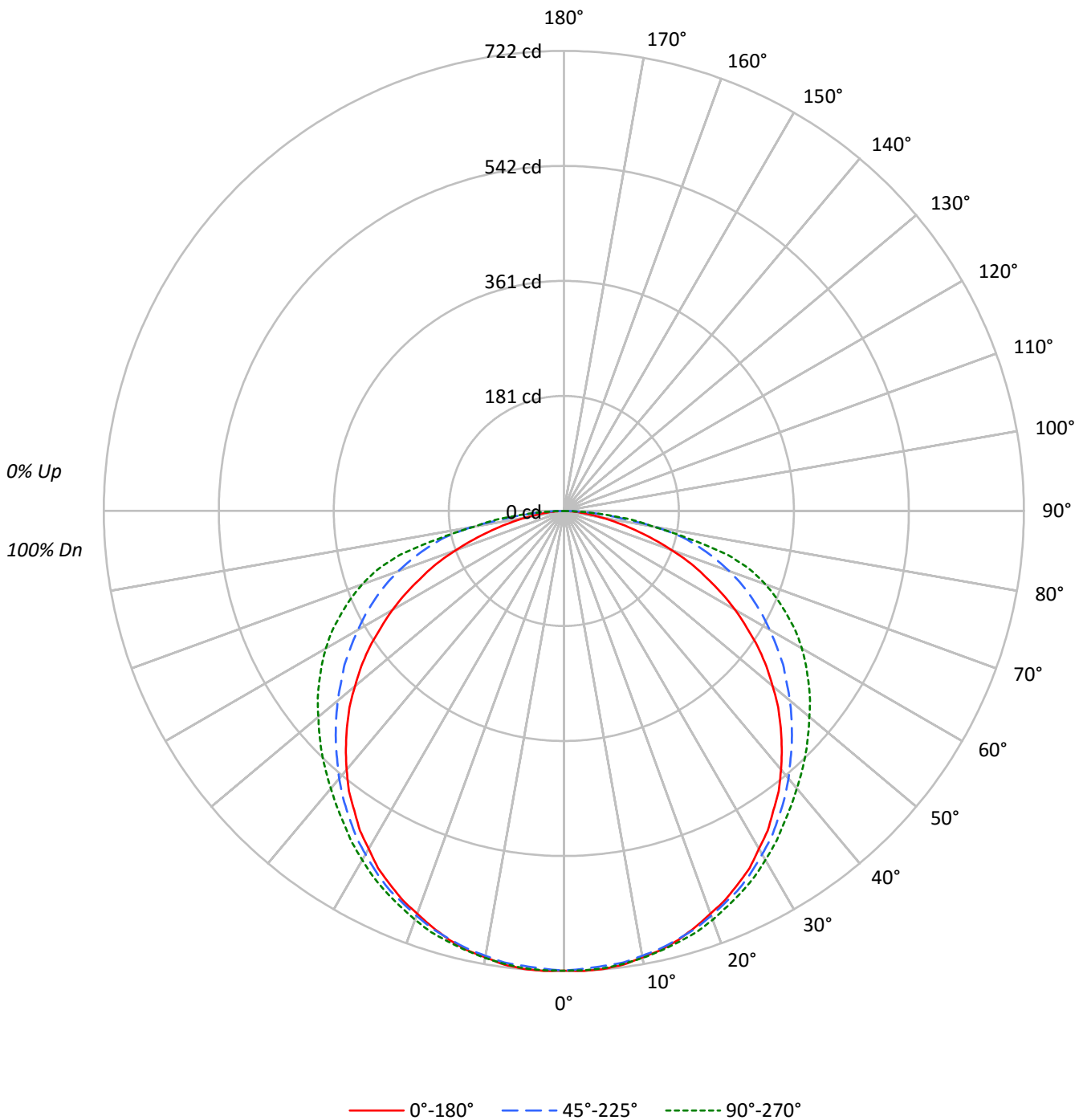
Lumens per Lamp: N/A  
Luminaire Lumens: 2294.0 lumens  
Efficiency: N/A  
Efficacy: 84.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	971	971	971
5°	974	968	973
10°	972	969	973
15°	970	968	975
20°	963	968	978
25°	959	970	980
30°	951	967	983
35°	942	964	987
40°	931	963	999
45°	916	963	1022
50°	895	969	1053
55°	873	985	1100
60°	836	1004	1160
65°	783	1040	1232
70°	712	1088	1325
75°	604	1147	1384
80°	476	1155	1120
85°	352	878	983



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.4	3.0
10°-20°	196.9	8.6
20°-30°	301.2	13.1
30°-40°	368.2	16.0
40°-50°	392.4	17.1
50°-60°	375.2	16.4
60°-70°	317.8	13.9
70°-80°	213.6	9.3
80°-90°	60.3	2.6
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°	566.5	24.7
0°-40°	934.7	40.7
0°-60°	1702.3	74.2
0°-90°	2294.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2294.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	721	721	721	721	721	
5°	721	720	717	720	720	69
15°	696	696	695	701	700	196
25°	646	649	653	659	660	298
35°	574	578	587	598	601	359
45°	481	489	506	528	537	371
55°	372	386	420	453	469	331
65°	246	271	327	370	387	244
75°	116	158	221	258	266	124
85°	23	47	57	61	64	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	721.4	721.4	721.4	721.4	721.4
2.5°	722.5	722.5	719.1	721.4	721.4
5°	721.4	720.3	716.8	720.3	720.3
7.5°	718.0	716.8	714.6	718.0	716.8
10°	711.2	711.2	708.9	712.3	712.3
12.5°	705.5	704.3	703.2	707.7	706.6
15°	696.4	696.4	695.2	700.9	699.8
17.5°	685.0	686.1	687.3	691.8	693.0
20°	672.5	674.7	675.9	682.7	682.7
22.5°	661.1	662.2	664.5	671.3	671.3
25°	646.3	648.6	653.1	658.8	660.0
27.5°	631.5	632.6	638.3	646.3	647.4
30°	612.2	615.6	622.4	631.5	632.6
32.5°	595.1	598.5	606.5	615.6	617.9
35°	573.5	578.0	587.1	598.5	600.8
37.5°	554.1	557.5	568.9	581.4	584.9
40°	530.2	537.1	548.4	563.2	568.9
42.5°	506.3	513.2	526.8	546.2	553.0
45°	481.3	489.3	506.3	528.0	537.1
47.5°	456.3	465.4	484.7	509.8	520.0
50°	427.8	439.2	463.1	491.6	502.9
52.5°	400.5	414.2	440.3	472.2	487.0
55°	372.1	385.7	419.9	452.9	468.8
57.5°	340.2	358.4	396.0	433.5	450.6
60°	310.6	327.7	373.2	414.2	431.2
62.5°	278.8	301.5	350.5	393.7	410.8
65°	245.8	270.8	326.6	369.8	386.9
67.5°	216.2	243.5	302.7	345.9	363.0
70°	180.9	215.1	276.5	319.7	336.8
72.5°	147.9	185.5	249.2	291.3	307.2
75°	116.1	158.2	220.7	258.3	266.3
77.5°	86.5	130.9	191.2	207.1	201.4
80°	61.4	104.7	149.1	141.1	144.5
82.5°	39.8	79.6	92.2	104.7	108.1
85°	22.8	46.7	56.9	61.4	63.7
87.5°	10.2	17.1	22.8	22.8	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)