

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: P313525

Luminaire Tested: **24FCZ2-40HE-UNV-L83050-RDP-CP125-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: P313525  
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: 24FCZ2-40HE-UNV-L83050-RDP-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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: 2312.0 lumens  
Efficiency: N/A  
Efficacy: 76.3 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

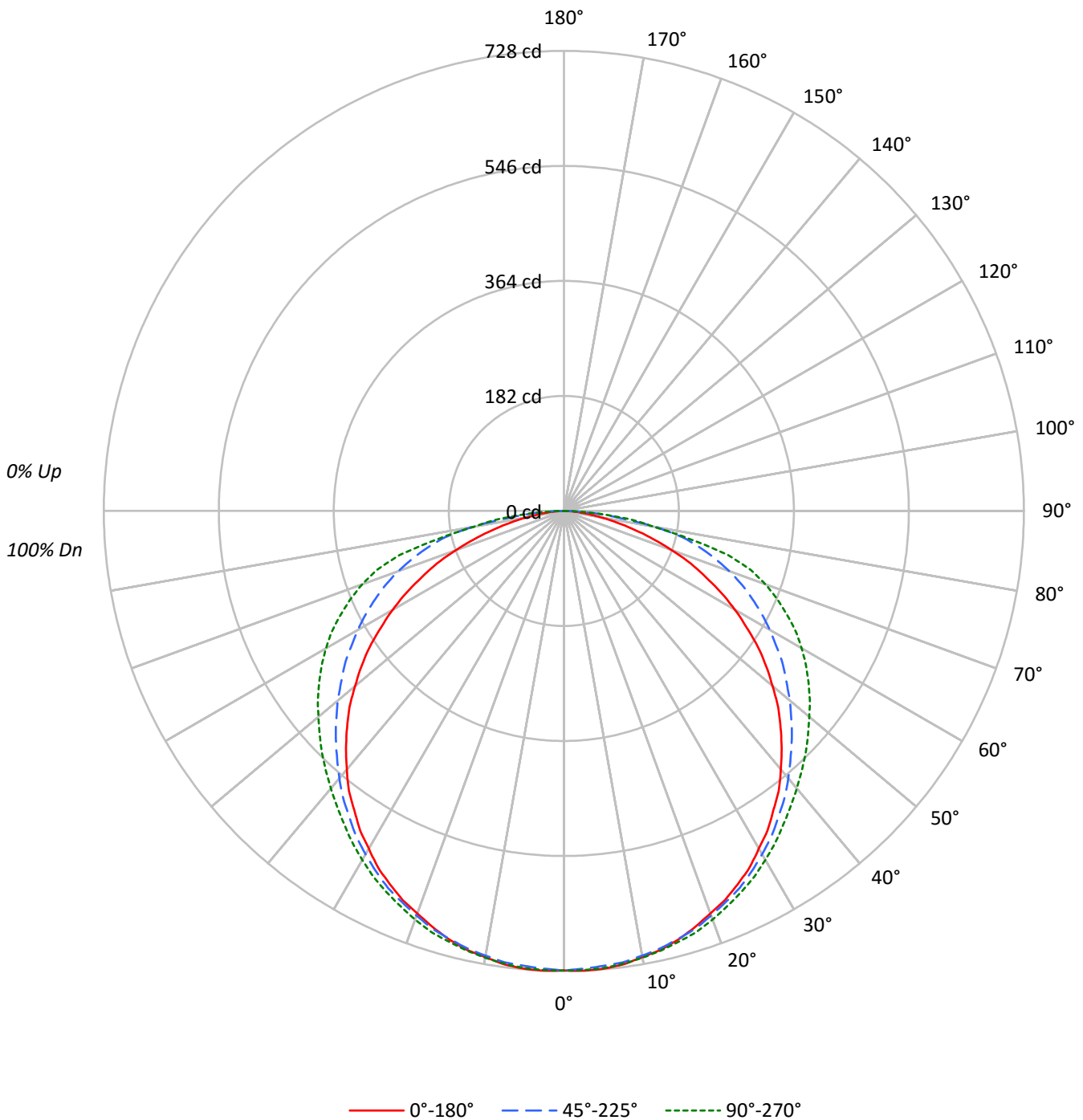
Input Watts (W): 30.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	68	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°	978	978	978
5°	982	976	980
10°	979	976	981
15°	978	976	982
20°	970	975	985
25°	967	977	987
30°	959	975	991
35°	949	972	995
40°	939	971	1007
45°	923	971	1030
50°	903	977	1061
55°	880	993	1108
60°	843	1012	1169
65°	789	1048	1241
70°	717	1096	1335
75°	608	1157	1395
80°	480	1164	1128
85°	354	885	991



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.0	3.0
10°-20°	198.5	8.6
20°-30°	303.5	13.1
30°-40°	371.1	16.0
40°-50°	395.5	17.1
50°-60°	378.1	16.4
60°-70°	320.3	13.9
70°-80°	215.3	9.3
80°-90°	60.7	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°	571.0	24.7
0°-40°	942.1	40.7
0°-60°	1715.7	74.2
0°-90°	2312.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2312.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	727	727	727	727	727	
5°	727	726	722	726	726	69
15°	702	702	701	706	705	198
25°	651	654	658	664	665	300
35°	578	583	592	603	606	362
45°	485	493	510	532	541	374
55°	375	389	423	456	472	334
65°	248	273	329	373	390	246
75°	117	159	222	260	268	125
85°	23	47	57	62	64	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	727.1	727.1	727.1	727.1	727.1
2.5°	728.2	728.2	724.8	727.1	727.1
5°	727.1	725.9	722.5	725.9	725.9
7.5°	723.6	722.5	720.2	723.6	722.5
10°	716.7	716.7	714.4	717.9	717.9
12.5°	711.0	709.9	708.7	713.3	712.1
15°	701.8	701.8	700.7	706.4	705.3
17.5°	690.4	691.5	692.7	697.2	698.4
20°	677.7	680.0	681.2	688.1	688.1
22.5°	666.3	667.4	669.7	676.6	676.6
25°	651.4	653.7	658.3	664.0	665.1
27.5°	636.5	637.6	643.3	651.4	652.5
30°	617.0	620.4	627.3	636.5	637.6
32.5°	599.8	603.2	611.2	620.4	622.7
35°	578.0	582.6	591.7	603.2	605.5
37.5°	558.5	561.9	573.4	586.0	589.4
40°	534.4	541.3	552.7	567.7	573.4
42.5°	510.3	517.2	531.0	550.5	557.3
45°	485.1	493.1	510.3	532.1	541.3
47.5°	459.9	469.0	488.5	513.8	524.1
50°	431.2	442.7	466.7	495.4	506.9
52.5°	403.7	417.4	443.8	475.9	490.8
55°	375.0	388.8	423.2	456.4	472.5
57.5°	342.9	361.2	399.1	436.9	454.1
60°	313.1	330.3	376.1	417.4	434.6
62.5°	281.0	303.9	353.2	396.8	414.0
65°	247.7	272.9	329.1	372.7	389.9
67.5°	217.9	245.4	305.0	348.6	365.8
70°	182.3	216.7	278.7	322.2	339.4
72.5°	149.1	186.9	251.1	293.6	309.6
75°	117.0	159.4	222.5	260.3	268.3
77.5°	87.2	131.9	192.7	208.7	203.0
80°	61.9	105.5	150.2	142.2	145.6
82.5°	40.1	80.3	92.9	105.5	108.9
85°	22.9	47.0	57.3	61.9	64.2
87.5°	10.3	17.2	22.9	22.9	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)