

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: P313796

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-CA125-W2A-U-3500K**

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: P313796  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
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-CA125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 3500K 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**

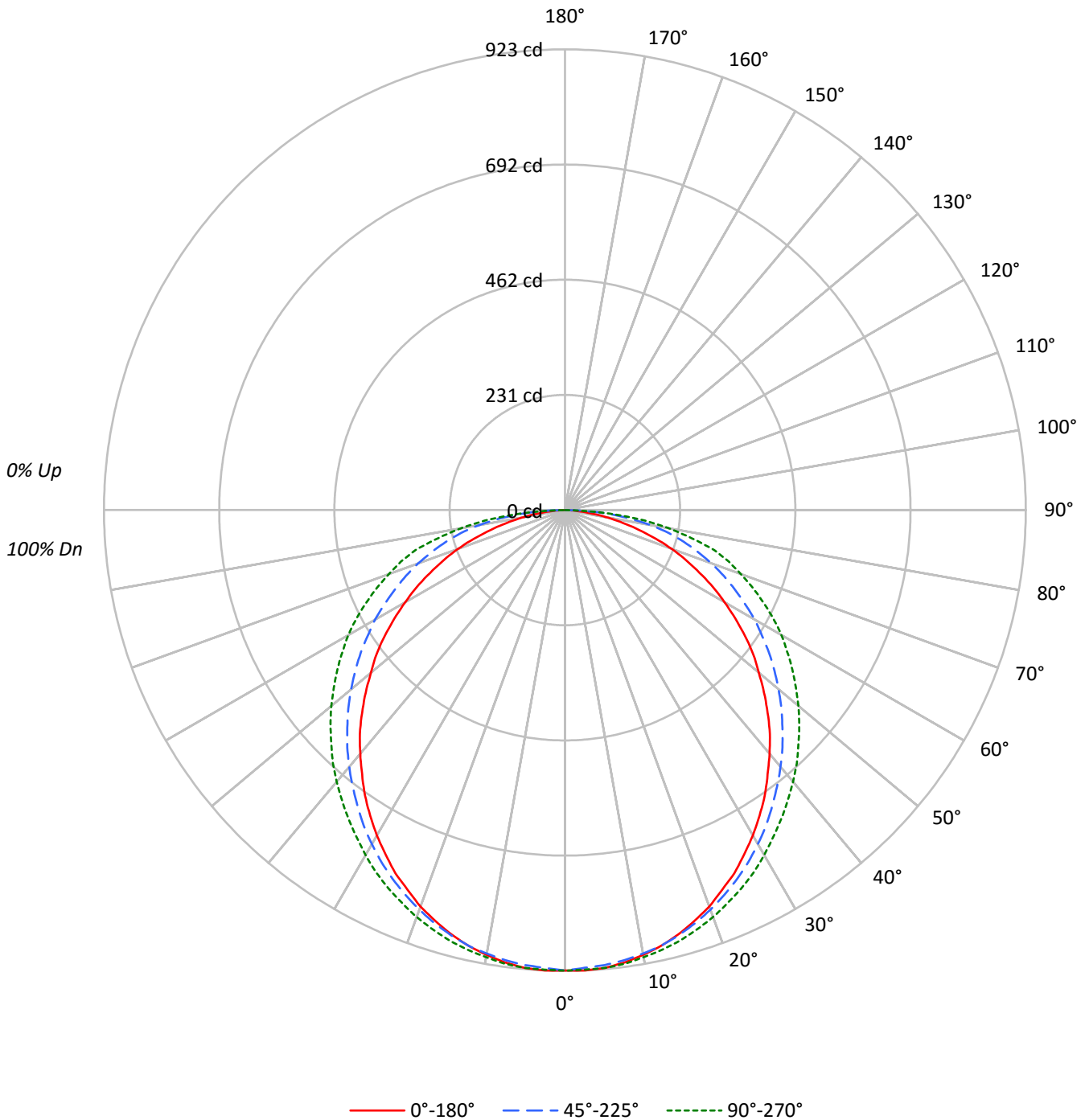
Lumens per Lamp: N/A  
Luminaire Lumens: 2797.0 lumens  
Efficiency: N/A  
Efficacy: 132.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	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	25	35	29	24	23

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

	0°	45°	90°
0°	1241	1241	1241
5°	1243	1236	1243
10°	1236	1232	1242
15°	1225	1228	1243
20°	1210	1220	1242
25°	1192	1211	1241
30°	1169	1201	1240
35°	1146	1189	1241
40°	1120	1180	1248
45°	1093	1173	1259
50°	1061	1169	1278
55°	1034	1171	1304
60°	994	1181	1348
65°	948	1194	1397
70°	898	1230	1475
75°	801	1283	1612
80°	683	1359	1647
85°	488	1346	1576



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.3	3.1
10°-20°	249.6	8.9
20°-30°	377.0	13.5
30°-40°	454.4	16.2
40°-50°	477.0	17.1
50°-60°	446.3	16.0
60°-70°	368.6	13.2
70°-80°	251.1	9.0
80°-90°	85.7	3.1
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°	713.9	25.5
0°-40°	1168.3	41.8
0°-60°	2091.7	74.8
0°-90°	2797.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2797.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	922	922	922	922	922	
5°	921	920	915	921	921	87
15°	880	881	882	891	893	248
25°	803	806	816	832	836	369
35°	698	705	724	748	755	436
45°	574	586	616	650	662	443
55°	441	458	499	540	556	393
65°	298	323	375	422	439	295
75°	154	189	247	293	310	164
85°	32	62	87	98	102	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	922.4	922.4	922.4	922.4	922.4
2.5°	923.4	922.4	917.8	922.4	921.5
5°	920.6	919.6	915.0	920.6	920.6
7.5°	914.1	914.1	909.4	915.9	916.9
10°	904.8	904.8	902.0	909.4	909.4
12.5°	893.7	893.7	893.7	901.1	902.0
15°	879.7	880.7	881.6	890.9	892.7
17.5°	863.0	864.9	867.7	878.8	880.7
20°	845.4	847.3	851.9	864.9	867.7
22.5°	823.1	827.8	834.3	849.1	851.9
25°	802.7	806.4	815.7	831.5	836.1
27.5°	777.7	783.2	795.3	812.0	818.5
30°	752.6	758.2	773.0	792.5	798.1
32.5°	725.7	734.0	749.8	770.2	776.7
35°	697.9	705.3	723.8	748.0	755.4
37.5°	667.2	677.4	697.9	723.8	733.1
40°	637.5	648.7	671.9	699.7	710.8
42.5°	607.8	619.0	645.0	676.5	687.6
45°	574.4	586.5	616.2	649.6	661.7
47.5°	541.0	555.9	588.3	623.6	636.6
50°	506.7	523.4	558.7	595.8	610.6
52.5°	476.1	491.8	529.0	568.9	582.8
55°	440.8	458.4	499.3	540.1	555.9
57.5°	404.6	424.1	467.7	512.3	528.0
60°	369.3	390.7	438.9	483.5	501.1
62.5°	335.0	356.3	406.5	452.9	470.5
65°	297.9	322.9	374.9	422.2	438.9
67.5°	262.6	289.5	344.3	390.7	407.4
70°	228.3	254.3	312.7	358.2	374.9
72.5°	191.2	220.9	279.3	326.7	344.3
75°	154.0	189.3	246.8	293.2	310.0
77.5°	119.7	155.9	213.4	251.5	259.8
80°	88.2	125.3	175.4	202.3	212.5
82.5°	56.6	93.7	133.6	153.1	161.5
85°	31.6	62.2	87.2	98.4	102.1
87.5°	13.0	26.9	35.3	39.9	39.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)