

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: P309385

Luminaire Tested: **24FCZ2-40-UNV-L82765-HRP-CP125-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: P309385  
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: 24FCZ2-40-UNV-L82765-HRP-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 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: 2679.0 lumens  
Efficiency: N/A  
Efficacy: 81.4 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

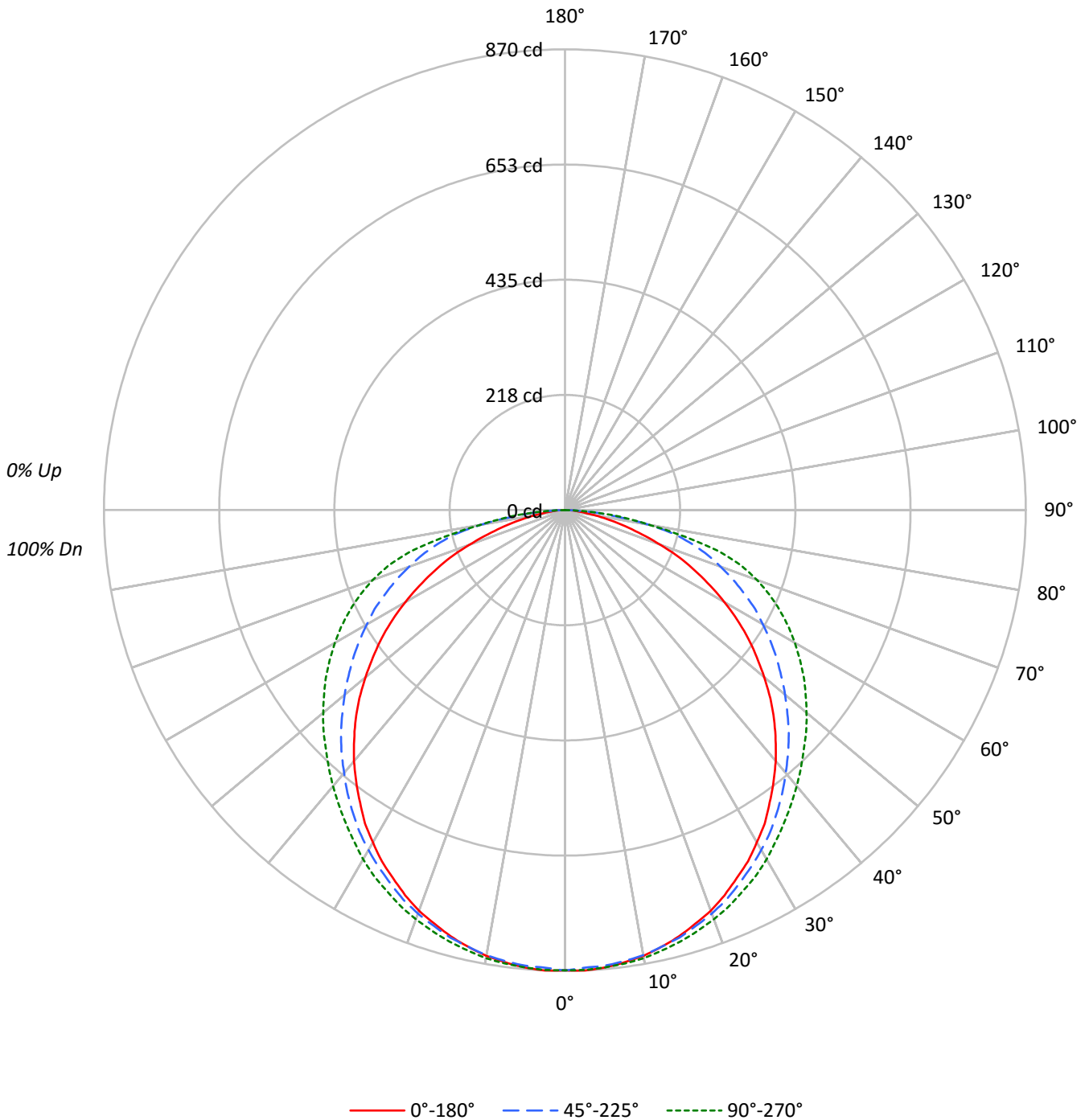
Input Watts (W): 32.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1169	1169	1169
5°	1171	1166	1171
10°	1168	1166	1174
15°	1161	1164	1175
20°	1153	1161	1177
25°	1139	1156	1179
30°	1126	1152	1183
35°	1107	1146	1185
40°	1087	1139	1196
45°	1063	1137	1214
50°	1028	1136	1247
55°	992	1145	1292
60°	936	1162	1349
65°	864	1189	1425
70°	755	1231	1518
75°	612	1294	1568
80°	452	1268	1268
85°	346	936	1056



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.3	3.1
10°-20°	236.5	8.8
20°-30°	360.0	13.4
30°-40°	437.1	16.3
40°-50°	461.8	17.2
50°-60°	435.7	16.3
60°-70°	362.3	13.5
70°-80°	238.4	8.9
80°-90°	65.0	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°	678.8	25.3
0°-40°	1115.9	41.7
0°-60°	2013.4	75.2
0°-90°	2679.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2679.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	869	869	869	869	869	
5°	867	867	864	867	867	82
15°	833	834	836	843	843	235
25°	767	772	778	792	794	354
35°	674	682	698	716	721	422
45°	558	570	598	627	638	430
55°	423	441	488	534	551	377
65°	271	303	374	428	448	268
75°	118	172	249	295	302	127
85°	22	49	61	67	68	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	869.2	869.2	869.2	869.2	869.2
2.5°	870.3	869.2	864.7	869.2	869.2
5°	867.0	867.0	863.6	867.0	867.0
7.5°	861.4	861.4	859.1	863.6	863.6
10°	854.6	854.6	853.5	859.1	859.1
12.5°	844.5	845.7	844.5	851.3	851.3
15°	833.3	834.4	835.6	843.4	843.4
17.5°	818.7	821.0	823.2	832.2	833.3
20°	805.3	806.4	810.9	821.0	822.1
22.5°	787.3	790.7	796.3	806.4	809.8
25°	767.1	771.6	778.4	791.8	794.1
27.5°	748.1	751.4	760.4	775.0	779.5
30°	724.5	730.1	741.3	755.9	761.5
32.5°	702.1	707.7	721.2	736.9	741.3
35°	674.1	681.9	697.6	715.6	721.2
37.5°	647.1	655.0	674.1	694.2	701.0
40°	619.1	628.1	648.3	671.8	680.8
42.5°	588.8	601.2	623.6	649.4	659.5
45°	558.5	569.7	597.8	626.9	638.2
47.5°	526.0	539.5	569.7	604.5	618.0
50°	491.2	508.1	542.8	581.0	595.5
52.5°	456.5	475.5	514.8	557.4	573.1
55°	422.8	440.8	487.9	533.9	550.7
57.5°	385.8	408.2	459.8	509.2	526.0
60°	347.7	372.4	431.8	483.4	501.3
62.5°	309.5	337.6	404.9	456.5	475.5
65°	271.4	302.8	373.5	428.4	447.5
67.5°	234.4	269.2	344.3	399.3	418.3
70°	191.8	235.5	312.9	366.7	385.8
72.5°	152.5	203.0	282.6	333.1	349.9
75°	117.8	171.6	249.0	295.0	301.7
77.5°	86.4	140.2	214.2	229.9	231.0
80°	58.3	112.2	163.7	161.5	163.7
82.5°	38.1	84.1	103.2	115.5	116.6
85°	22.4	49.3	60.6	67.3	68.4
87.5°	11.2	16.8	21.3	22.4	24.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)