

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: P309391

Luminaire Tested: **24FCZ2-40-UNV-L82765-HRP-CP125-W2A-U-6500K**

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: P309391  
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-6500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"  
POLYCARB SHEET  
Light Source: (168) 6500K 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: 2867.0 lumens  
Efficiency: N/A  
Efficacy: 83.8 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

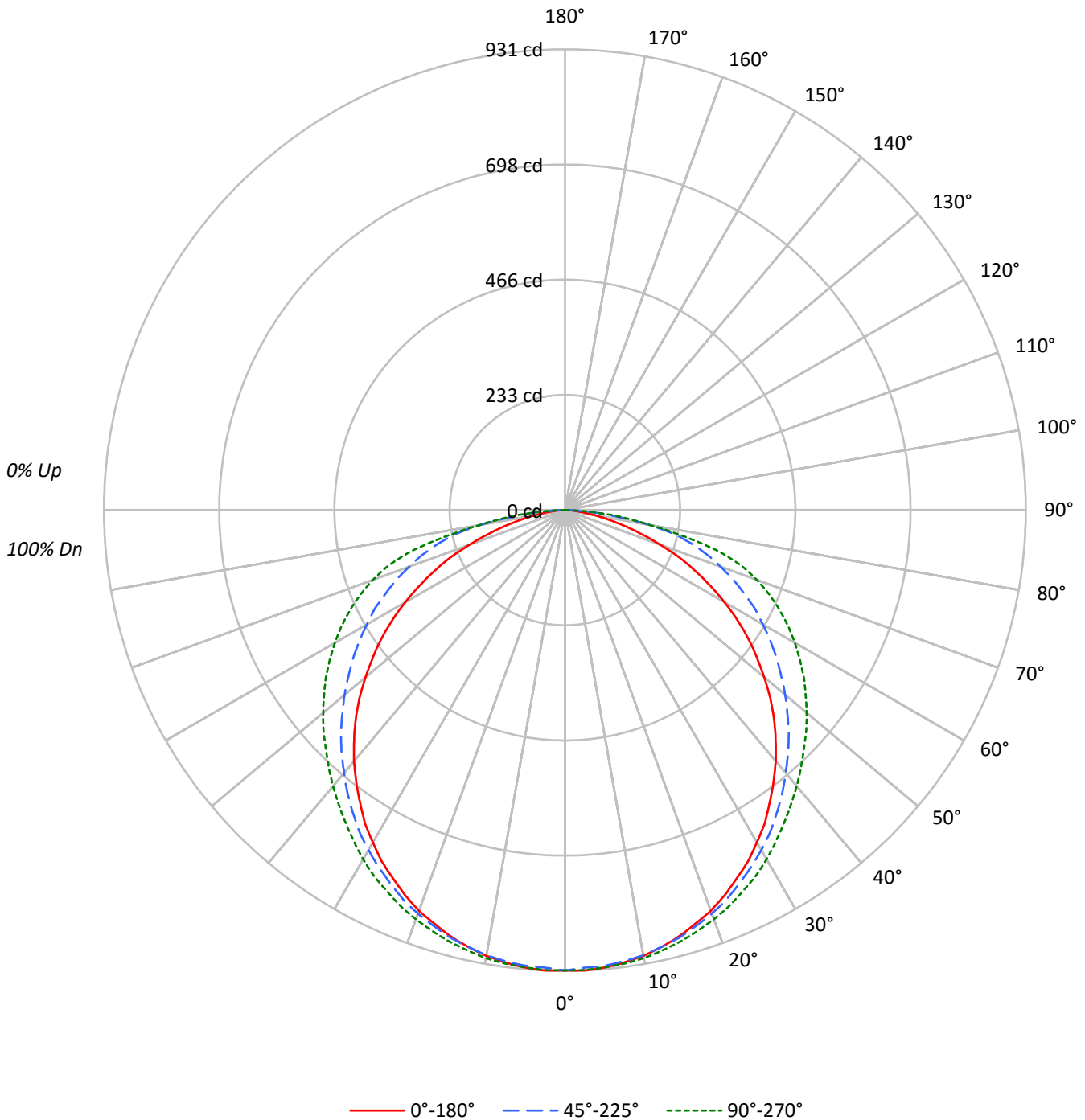
Input Watts (W): 34.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1252	1252	1252
5°	1253	1248	1253
10°	1250	1248	1256
15°	1242	1246	1257
20°	1234	1243	1260
25°	1219	1237	1262
30°	1205	1233	1266
35°	1185	1226	1268
40°	1164	1218	1280
45°	1137	1217	1299
50°	1100	1216	1334
55°	1061	1225	1382
60°	1001	1244	1444
65°	925	1273	1525
70°	807	1317	1624
75°	655	1385	1679
80°	483	1358	1358
85°	371	1000	1130



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.1	3.1
10°-20°	253.0	8.8
20°-30°	385.2	13.4
30°-40°	467.8	16.3
40°-50°	494.2	17.2
50°-60°	466.3	16.3
60°-70°	387.7	13.5
70°-80°	255.1	8.9
80°-90°	69.5	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°	726.4	25.3
0°-40°	1194.2	41.7
0°-60°	2154.7	75.2
0°-90°	2867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2867.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	930	930	930	930	930	
5°	928	928	924	928	928	88
15°	892	893	894	903	903	252
25°	821	826	833	847	850	379
35°	721	730	747	766	772	452
45°	598	610	640	671	683	460
55°	452	472	522	571	589	403
65°	290	324	400	458	479	287
75°	126	184	266	316	323	136
85°	24	53	65	72	73	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	930.2	930.2	930.2	930.2	930.2
2.5°	931.4	930.2	925.4	930.2	930.2
5°	927.8	927.8	924.2	927.8	927.8
7.5°	921.8	921.8	919.4	924.2	924.2
10°	914.6	914.6	913.4	919.4	919.4
12.5°	903.8	905.0	903.8	911.0	911.0
15°	891.8	893.0	894.2	902.6	902.6
17.5°	876.2	878.6	881.0	890.6	891.8
20°	861.8	863.0	867.8	878.6	879.8
22.5°	842.6	846.2	852.2	863.0	866.6
25°	821.0	825.8	833.0	847.4	849.8
27.5°	800.6	804.2	813.8	829.4	834.2
30°	775.4	781.4	793.4	809.0	815.0
32.5°	751.4	757.4	771.8	788.6	793.4
35°	721.4	729.8	746.6	765.8	771.8
37.5°	692.5	701.0	721.4	743.0	750.2
40°	662.5	672.1	693.7	719.0	728.6
42.5°	630.1	643.3	667.3	694.9	705.8
45°	597.7	609.7	639.7	670.9	682.9
47.5°	562.9	577.3	609.7	646.9	661.3
50°	525.7	543.7	580.9	621.7	637.3
52.5°	488.5	508.9	550.9	596.5	613.3
55°	452.5	471.7	522.1	571.3	589.3
57.5°	412.9	436.9	492.1	544.9	562.9
60°	372.1	398.5	462.1	517.3	536.5
62.5°	331.3	361.3	433.3	488.5	508.9
65°	290.5	324.1	399.7	458.5	478.9
67.5°	250.9	288.1	368.5	427.3	447.7
70°	205.2	252.1	334.9	392.5	412.9
72.5°	163.2	217.2	302.5	356.5	374.5
75°	126.0	183.6	266.5	315.7	322.9
77.5°	92.4	150.0	229.2	246.1	247.3
80°	62.4	120.0	175.2	172.8	175.2
82.5°	40.8	90.0	110.4	123.6	124.8
85°	24.0	52.8	64.8	72.0	73.2
87.5°	12.0	18.0	22.8	24.0	26.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)