

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: P310077

Luminaire Tested: **24FCZ2-40-UNV-L82765-RDP-CP250-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: P310077
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: 24FCZ2-40-UNV-L82765-RDP-CP250-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (168) 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: 2181.0 lumens
Efficiency: N/A
Efficacy: 67.1 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

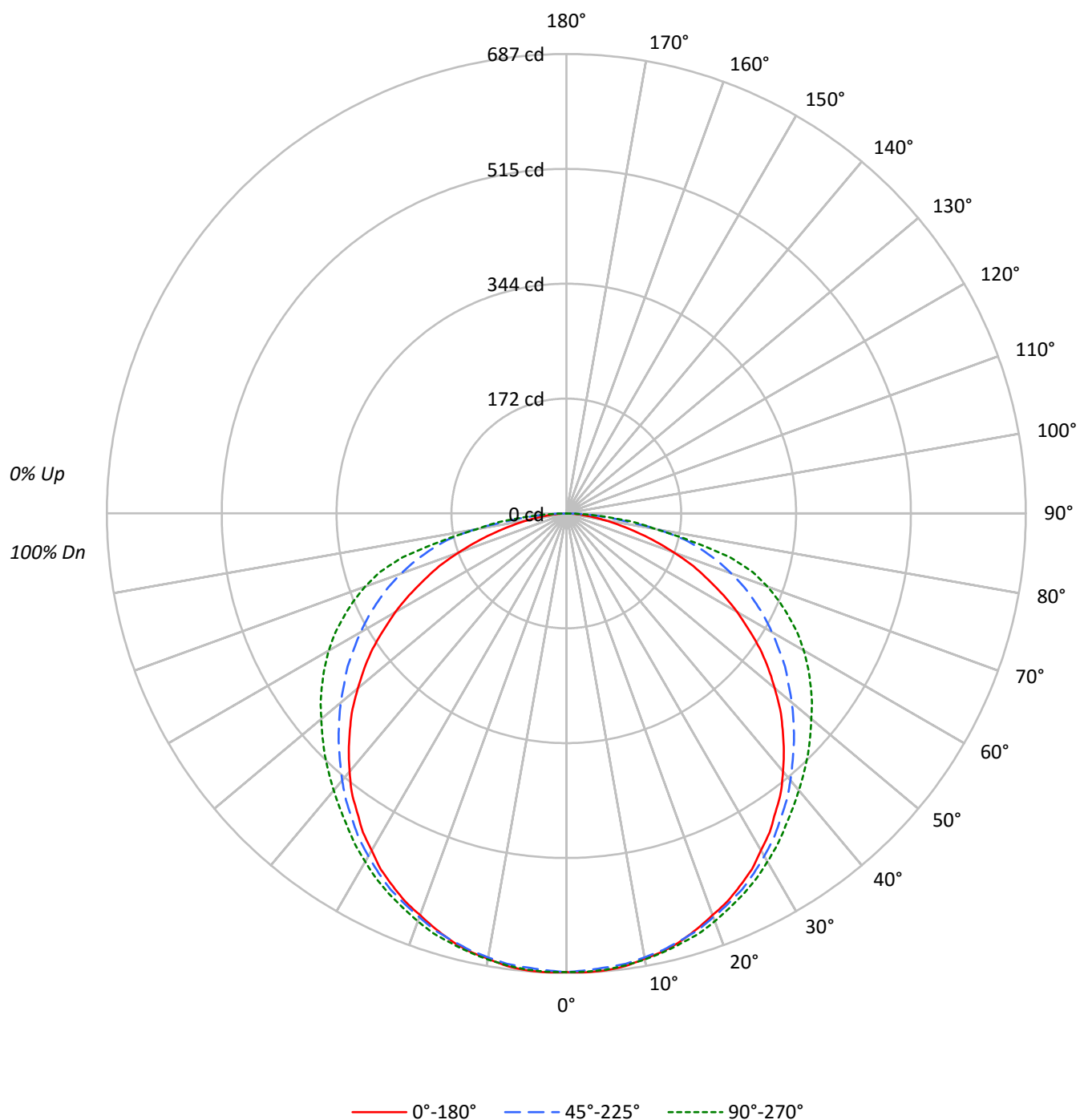
Input Watts (W): 32.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	68	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	923	923	923
5°	926	920	925
10°	924	921	925
15°	922	921	927
20°	915	920	929
25°	912	922	931
30°	904	919	935
35°	896	917	938
40°	885	916	950
45°	871	916	972
50°	852	922	1001
55°	830	936	1046
60°	795	955	1103
65°	744	989	1171
70°	677	1034	1260
75°	573	1091	1316
80°	453	1098	1065
85°	333	835	936



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	3.0
10°-20°	187.2	8.6
20°-30°	286.3	13.1
30°-40°	350.0	16.0
40°-50°	373.1	17.1
50°-60°	356.7	16.4
60°-70°	302.2	13.9
70°-80°	203.1	9.3
80°-90°	57.3	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°	538.6	24.7
0°-40°	888.7	40.7
0°-60°	1618.5	74.2
0°-90°	2181.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2181.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	686	686	686	686	686	
5°	686	685	682	685	685	65
15°	662	662	661	666	665	187
25°	614	617	621	626	627	283
35°	545	550	558	569	571	342
45°	458	465	481	502	511	353
55°	354	367	399	431	446	315
65°	234	258	310	352	368	232
75°	110	150	210	246	253	118
85°	22	44	54	58	61	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	685.9	685.9	685.9	685.9	685.9
2.5°	686.9	686.9	683.7	685.9	685.9
5°	685.9	684.8	681.5	684.8	684.8
7.5°	682.6	681.5	679.4	682.6	681.5
10°	676.1	676.1	674.0	677.2	677.2
12.5°	670.7	669.6	668.6	672.9	671.8
15°	662.1	662.1	661.0	666.4	665.3
17.5°	651.2	652.3	653.4	657.7	658.8
20°	639.3	641.5	642.6	649.1	649.1
22.5°	628.5	629.6	631.8	638.3	638.3
25°	614.5	616.6	621.0	626.4	627.4
27.5°	600.4	601.5	606.9	614.5	615.5
30°	582.0	585.3	591.7	600.4	601.5
32.5°	565.8	569.0	576.6	585.3	587.4
35°	545.2	549.6	558.2	569.0	571.2
37.5°	526.8	530.1	540.9	552.8	556.0
40°	504.1	510.6	521.4	535.5	540.9
42.5°	481.4	487.9	500.9	519.3	525.8
45°	457.6	465.2	481.4	502.0	510.6
47.5°	433.8	442.5	460.8	484.6	494.4
50°	406.8	417.6	440.3	467.3	478.2
52.5°	380.8	393.8	418.7	448.9	463.0
55°	353.7	366.7	399.2	430.6	445.7
57.5°	323.5	340.8	376.5	412.2	428.4
60°	295.3	311.6	354.8	393.8	410.0
62.5°	265.0	286.7	333.2	374.3	390.5
65°	233.7	257.5	310.5	351.6	367.8
67.5°	205.5	231.5	287.8	328.9	345.1
70°	172.0	204.5	262.9	304.0	320.2
72.5°	140.6	176.3	236.9	276.9	292.1
75°	110.3	150.4	209.9	245.6	253.1
77.5°	82.2	124.4	181.7	196.9	191.5
80°	58.4	99.5	141.7	134.1	137.4
82.5°	37.9	75.7	87.6	99.5	102.8
85°	21.6	44.4	54.1	58.4	60.6
87.5°	9.7	16.2	21.6	21.6	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)