

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: P310032

Luminaire Tested: **24FCZ2-40HE-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: P310032
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-L82765-RDP-CP250-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 2194.0 lumens
Efficiency: N/A
Efficacy: 72.6 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

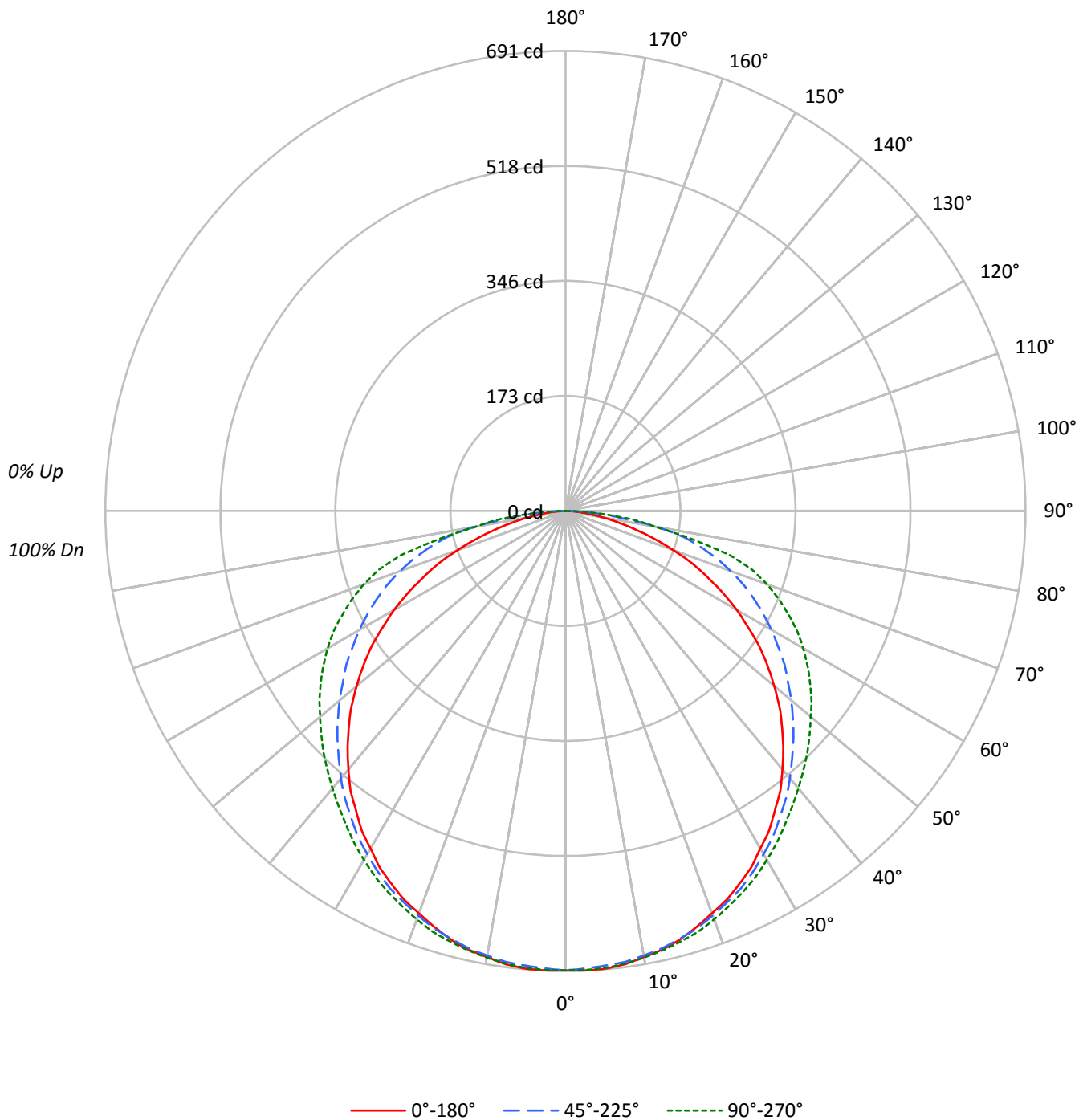
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	67	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°	928	928	928
5°	932	926	930
10°	929	926	931
15°	928	926	932
20°	921	926	935
25°	918	927	937
30°	910	925	940
35°	901	922	944
40°	891	921	956
45°	876	922	977
50°	857	927	1007
55°	835	942	1052
60°	799	960	1110
65°	748	994	1178
70°	681	1040	1267
75°	577	1097	1324
80°	456	1105	1071
85°	337	840	940



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.4	3.0
10°-20°	188.4	8.6
20°-30°	288.0	13.1
30°-40°	352.1	16.0
40°-50°	375.3	17.1
50°-60°	358.8	16.4
60°-70°	304.0	13.9
70°-80°	204.3	9.3
80°-90°	57.6	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°	541.9	24.7
0°-40°	894.0	40.7
0°-60°	1628.1	74.2
0°-90°	2194.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2194.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	690	690	690	690	690	
5°	690	689	686	689	689	66
15°	666	666	665	670	669	188
25°	618	620	625	630	631	285
35°	548	553	562	572	575	344
45°	460	468	484	505	514	355
55°	356	369	402	433	448	317
65°	235	259	312	354	370	233
75°	111	151	211	247	255	119
85°	22	45	54	59	61	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	690.0	690.0	690.0	690.0	690.0
2.5°	691.0	691.0	687.8	690.0	690.0
5°	690.0	688.9	685.6	688.9	688.9
7.5°	686.7	685.6	683.4	686.7	685.6
10°	680.2	680.2	678.0	681.2	681.2
12.5°	674.7	673.6	672.5	676.9	675.8
15°	666.0	666.0	664.9	670.4	669.3
17.5°	655.1	656.2	657.3	661.7	662.7
20°	643.2	645.3	646.4	652.9	652.9
22.5°	632.3	633.4	635.5	642.1	642.1
25°	618.1	620.3	624.7	630.1	631.2
27.5°	604.0	605.1	610.5	618.1	619.2
30°	585.5	588.7	595.3	604.0	605.1
32.5°	569.2	572.4	580.0	588.7	590.9
35°	548.5	552.8	561.5	572.4	574.6
37.5°	530.0	533.2	544.1	556.1	559.4
40°	507.1	513.7	524.5	538.7	544.1
42.5°	484.3	490.8	503.9	522.4	528.9
45°	460.3	467.9	484.3	504.9	513.7
47.5°	436.4	445.1	463.6	487.5	497.3
50°	409.2	420.1	442.9	470.1	481.0
52.5°	383.1	396.1	421.2	451.6	465.8
55°	355.9	368.9	401.6	433.1	448.4
57.5°	325.4	342.8	378.7	414.6	430.9
60°	297.1	313.4	356.9	396.1	412.4
62.5°	266.6	288.4	335.2	376.5	392.9
65°	235.1	259.0	312.3	353.7	370.0
67.5°	206.8	232.9	289.5	330.8	347.2
70°	173.0	205.7	264.4	305.8	322.1
72.5°	141.5	177.4	238.3	278.6	293.8
75°	111.0	151.3	211.1	247.0	254.7
77.5°	82.7	125.1	182.8	198.1	192.6
80°	58.8	100.1	142.6	134.9	138.2
82.5°	38.1	76.2	88.1	100.1	103.4
85°	21.8	44.6	54.4	58.8	60.9
87.5°	9.8	16.3	21.8	21.8	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)