

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: P309915

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-CA125-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: P309915
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: 24FCZ2-35HE-UNV-L82765-RDP-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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: 2035.0 lumens
Efficiency: N/A
Efficacy: 78.9 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

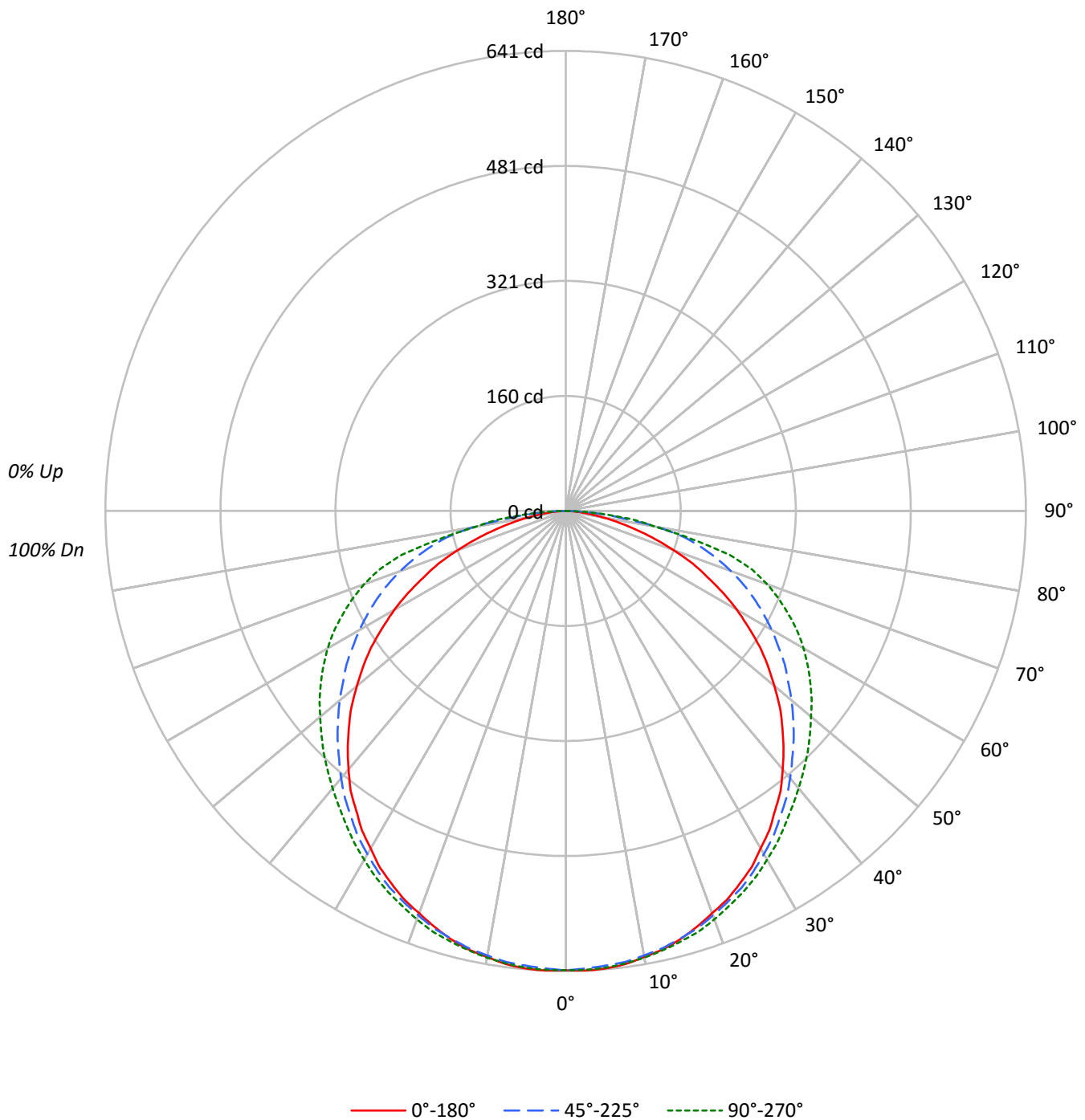
Input Watts (W): 25.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	861	861	861
5°	864	859	863
10°	862	859	863
15°	860	859	865
20°	854	859	867
25°	851	860	869
30°	844	858	872
35°	836	855	875
40°	826	854	886
45°	812	855	906
50°	794	860	934
55°	774	874	976
60°	742	891	1030
65°	694	922	1093
70°	631	965	1175
75°	535	1018	1228
80°	422	1024	993
85°	312	780	872



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.7	3.0
10°-20°	174.7	8.6
20°-30°	267.2	13.1
30°-40°	326.6	16.0
40°-50°	348.1	17.1
50°-60°	332.8	16.4
60°-70°	281.9	13.9
70°-80°	189.5	9.3
80°-90°	53.5	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°	502.6	24.7
0°-40°	829.2	40.7
0°-60°	1510.1	74.2
0°-90°	2035.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2035.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	640	640	640	640	640	
5°	640	639	636	639	639	61
15°	618	618	617	622	621	174
25°	573	575	579	584	585	264
35°	509	513	521	531	533	319
45°	427	434	449	468	476	329
55°	330	342	372	402	416	294
65°	218	240	290	328	343	216
75°	103	140	196	229	236	110
85°	20	41	50	54	56	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	639.9	639.9	639.9	639.9	639.9
2.5°	641.0	641.0	637.9	639.9	639.9
5°	639.9	638.9	635.9	638.9	638.9
7.5°	636.9	635.9	633.9	636.9	635.9
10°	630.9	630.9	628.8	631.9	631.9
12.5°	625.8	624.8	623.8	627.8	626.8
15°	617.7	617.7	616.7	621.8	620.8
17.5°	607.6	608.7	609.7	613.7	614.7
20°	596.5	598.6	599.6	605.6	605.6
22.5°	586.5	587.5	589.5	595.5	595.5
25°	573.3	575.3	579.4	584.4	585.4
27.5°	560.2	561.2	566.3	573.3	574.3
30°	543.0	546.1	552.1	560.2	561.2
32.5°	527.9	530.9	538.0	546.1	548.1
35°	508.7	512.8	520.8	530.9	533.0
37.5°	491.6	494.6	504.7	515.8	518.8
40°	470.4	476.4	486.5	499.6	504.7
42.5°	449.2	455.2	467.3	484.5	490.6
45°	427.0	434.0	449.2	468.4	476.4
47.5°	404.8	412.8	430.0	452.2	461.3
50°	379.5	389.6	410.8	436.1	446.1
52.5°	355.3	367.4	390.6	418.9	432.0
55°	330.1	342.2	372.5	401.7	415.9
57.5°	301.8	318.0	351.3	384.6	399.7
60°	275.6	290.7	331.1	367.4	382.6
62.5°	247.3	267.5	310.9	349.2	364.4
65°	218.0	240.2	289.7	328.0	343.2
67.5°	191.8	216.0	268.5	306.9	322.0
70°	160.5	190.8	245.3	283.6	298.8
72.5°	131.2	164.5	221.1	258.4	272.5
75°	103.0	140.3	195.8	229.1	236.2
77.5°	76.7	116.1	169.6	183.7	178.7
80°	54.5	92.9	132.2	125.2	128.2
82.5°	35.3	70.7	81.8	92.9	95.9
85°	20.2	41.4	50.5	54.5	56.5
87.5°	9.1	15.1	20.2	20.2	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)