

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: P313470

Luminaire Tested: **24FCZ2-35HE-UNV-L83050-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: P313470
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-L83050-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: 2038.0 lumens
Efficiency: N/A
Efficacy: 78.7 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

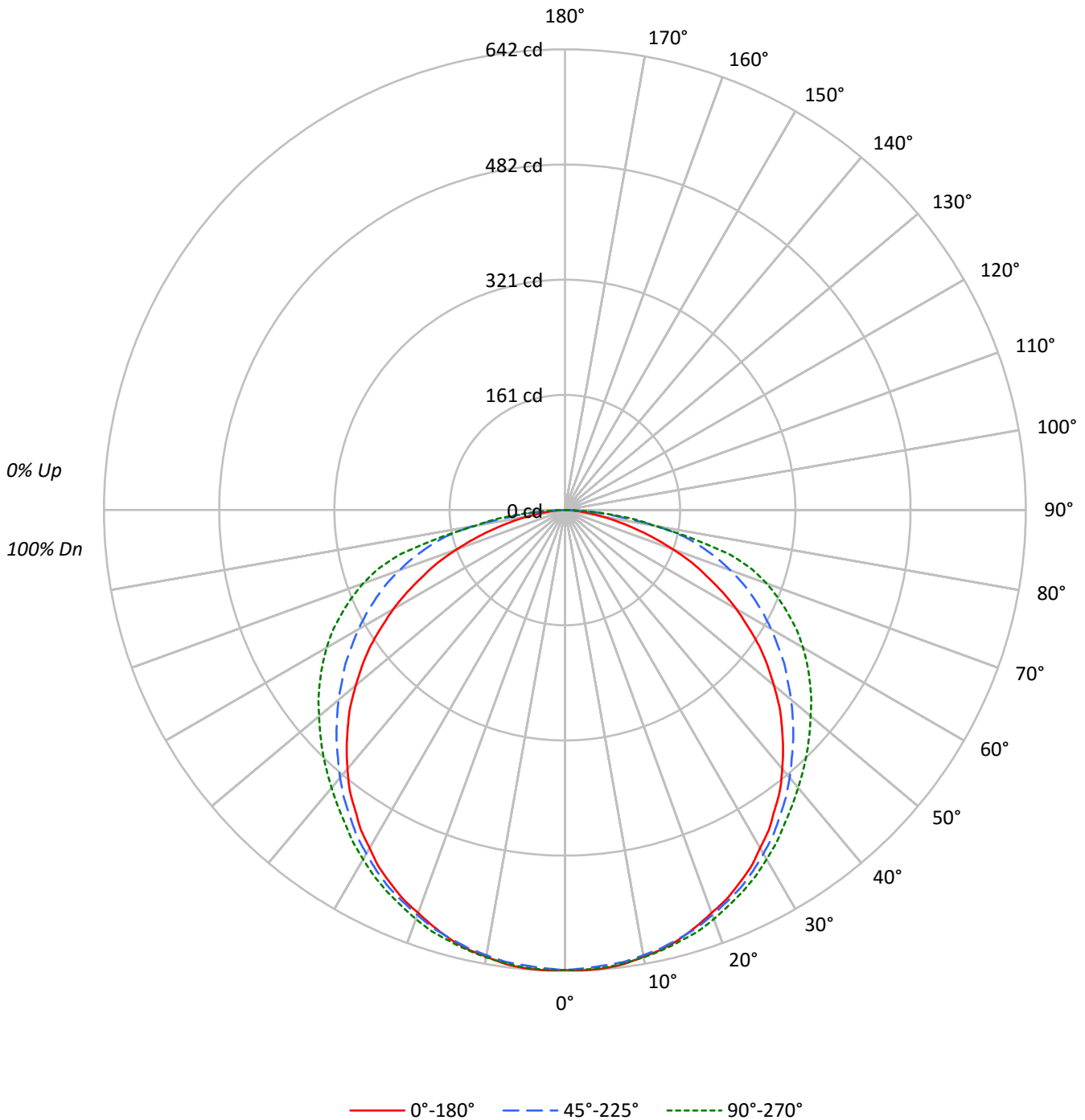
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	862	862	862
5°	866	860	864
10°	863	860	865
15°	862	860	866
20°	855	860	868
25°	852	861	870
30°	845	859	873
35°	837	857	877
40°	827	856	888
45°	814	856	908
50°	796	861	935
55°	776	875	977
60°	743	892	1031
65°	695	924	1094
70°	632	966	1177
75°	536	1019	1229
80°	423	1026	995
85°	312	780	874



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.8	3.0
10°-20°	175.0	8.6
20°-30°	267.6	13.1
30°-40°	327.1	16.0
40°-50°	348.6	17.1
50°-60°	333.3	16.4
60°-70°	282.4	13.9
70°-80°	189.8	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°	503.3	24.7
0°-40°	830.4	40.7
0°-60°	1512.3	74.2
0°-90°	2038.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2038.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	641	641	641	641	641	
5°	641	640	637	640	640	61
15°	619	619	618	623	622	174
25°	574	576	580	585	586	265
35°	510	514	522	532	534	319
45°	428	435	450	469	477	330
55°	331	343	373	402	416	294
65°	218	241	290	328	344	217
75°	103	140	196	230	236	110
85°	20	41	50	55	57	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	640.9	640.9	640.9	640.9	640.9
2.5°	641.9	641.9	638.9	640.9	640.9
5°	640.9	639.9	636.8	639.9	639.9
7.5°	637.9	636.8	634.8	637.9	636.8
10°	631.8	631.8	629.8	632.8	632.8
12.5°	626.7	625.7	624.7	628.8	627.8
15°	618.7	618.7	617.6	622.7	621.7
17.5°	608.5	609.6	610.6	614.6	615.6
20°	597.4	599.4	600.5	606.5	606.5
22.5°	587.3	588.3	590.3	596.4	596.4
25°	574.2	576.2	580.2	585.3	586.3
27.5°	561.0	562.0	567.1	574.2	575.2
30°	543.8	546.9	552.9	561.0	562.0
32.5°	528.7	531.7	538.8	546.9	548.9
35°	509.5	513.5	521.6	531.7	533.7
37.5°	492.3	495.3	505.4	516.6	519.6
40°	471.1	477.1	487.2	500.4	505.4
42.5°	449.8	455.9	468.0	485.2	491.3
45°	427.6	434.7	449.8	469.0	477.1
47.5°	405.4	413.4	430.6	452.9	462.0
50°	380.1	390.2	411.4	436.7	446.8
52.5°	355.8	368.0	391.2	419.5	432.7
55°	330.6	342.7	373.0	402.3	416.5
57.5°	302.3	318.4	351.8	385.1	400.3
60°	276.0	291.1	331.6	368.0	383.1
62.5°	247.7	267.9	311.3	349.8	364.9
65°	218.3	240.6	290.1	328.5	343.7
67.5°	192.1	216.3	268.9	307.3	322.5
70°	160.7	191.1	245.6	284.1	299.2
72.5°	131.4	164.8	221.4	258.8	272.9
75°	103.1	140.5	196.1	229.5	236.5
77.5°	76.8	116.3	169.8	184.0	178.9
80°	54.6	93.0	132.4	125.3	128.4
82.5°	35.4	70.8	81.9	93.0	96.0
85°	20.2	41.4	50.5	54.6	56.6
87.5°	9.1	15.2	20.2	20.2	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)