

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: P309930

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-CP125-W2A-U-5700K**

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: P309930
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-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 5700K 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: 2204.0 lumens
Efficiency: N/A
Efficacy: 82.5 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

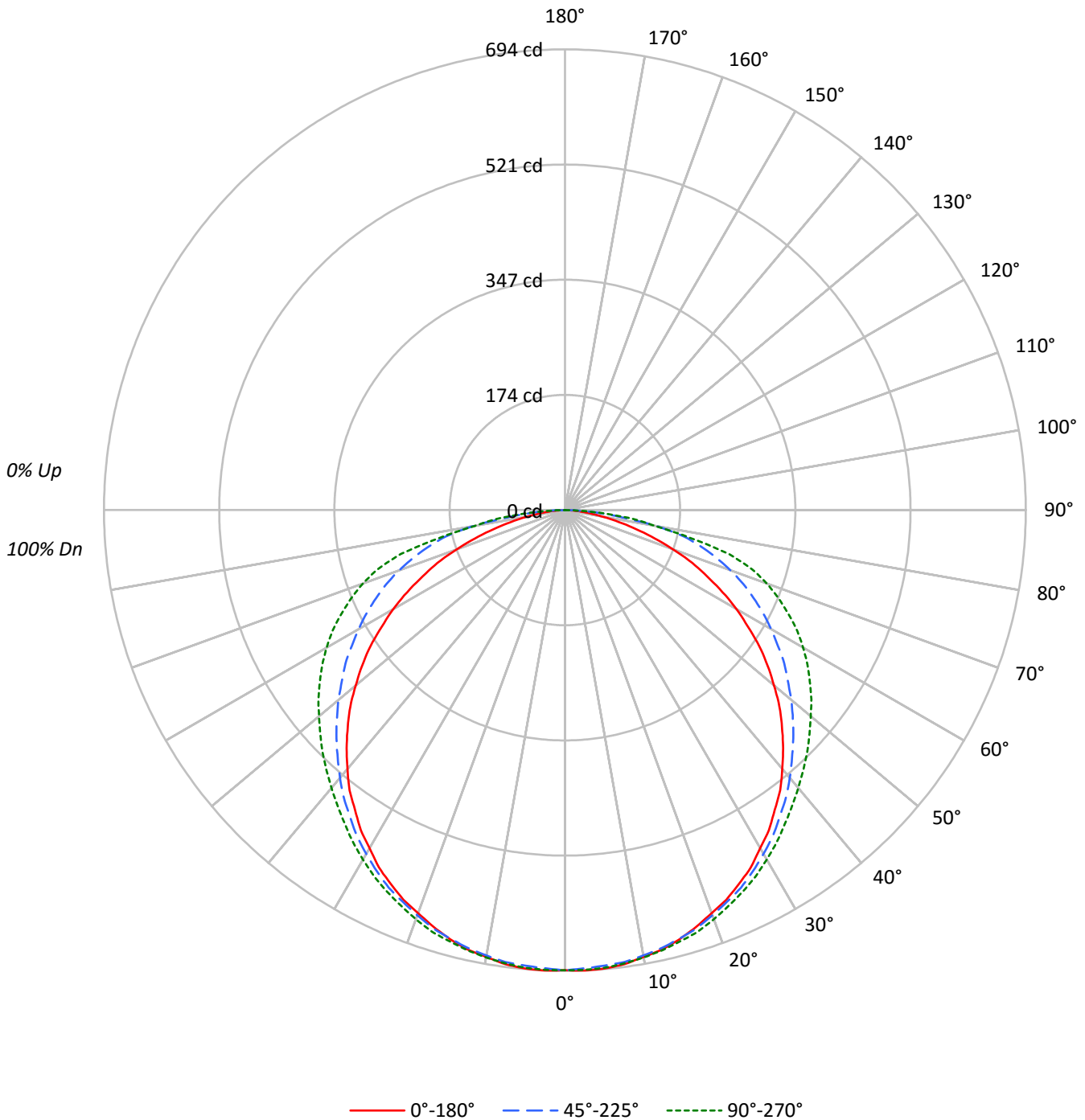
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	933	933	933
5°	936	930	935
10°	934	931	935
15°	932	930	936
20°	925	930	939
25°	922	932	941
30°	914	929	944
35°	905	927	948
40°	895	925	960
45°	880	926	982
50°	860	931	1011
55°	839	946	1057
60°	803	965	1115
65°	752	999	1183
70°	684	1045	1273
75°	580	1103	1330
80°	457	1110	1075
85°	338	844	945



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.7	3.0
10°-20°	189.2	8.6
20°-30°	289.3	13.1
30°-40°	353.7	16.0
40°-50°	377.0	17.1
50°-60°	360.5	16.4
60°-70°	305.4	13.9
70°-80°	205.2	9.3
80°-90°	57.9	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°	544.3	24.7
0°-40°	898.0	40.7
0°-60°	1635.5	74.2
0°-90°	2204.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2204.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	693	693	693	693	693	
5°	693	692	689	692	692	66
15°	669	669	668	673	672	189
25°	621	623	628	633	634	286
35°	551	555	564	575	577	345
45°	462	470	486	507	516	357
55°	358	371	403	435	450	318
65°	236	260	314	355	372	234
75°	112	152	212	248	256	119
85°	22	45	55	59	61	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	693.1	693.1	693.1	693.1	693.1
2.5°	694.2	694.2	690.9	693.1	693.1
5°	693.1	692.0	688.7	692.0	692.0
7.5°	689.8	688.7	686.5	689.8	688.7
10°	683.3	683.3	681.1	684.3	684.3
12.5°	677.8	676.7	675.6	680.0	678.9
15°	669.0	669.0	668.0	673.4	672.3
17.5°	658.1	659.2	660.3	664.7	665.8
20°	646.1	648.3	649.4	655.9	655.9
22.5°	635.2	636.2	638.4	645.0	645.0
25°	620.9	623.1	627.5	633.0	634.1
27.5°	606.7	607.8	613.3	620.9	622.0
30°	588.1	591.4	598.0	606.7	607.8
32.5°	571.7	575.0	582.7	591.4	593.6
35°	551.0	555.4	564.1	575.0	577.2
37.5°	532.4	535.7	546.6	558.6	561.9
40°	509.4	516.0	526.9	541.1	546.6
42.5°	486.5	493.0	506.2	524.7	531.3
45°	462.4	470.1	486.5	507.2	516.0
47.5°	438.4	447.1	465.7	489.8	499.6
50°	411.0	422.0	444.9	472.3	483.2
52.5°	384.8	397.9	423.1	453.7	467.9
55°	357.5	370.6	403.4	435.1	450.4
57.5°	326.9	344.4	380.4	416.5	432.9
60°	298.4	314.8	358.6	397.9	414.3
62.5°	267.8	289.7	336.7	378.3	394.6
65°	236.1	260.2	313.8	355.3	371.7
67.5°	207.7	233.9	290.8	332.3	348.7
70°	173.8	206.6	265.6	307.2	323.6
72.5°	142.1	178.2	239.4	279.9	295.2
75°	111.5	152.0	212.1	248.2	255.8
77.5°	83.1	125.7	183.7	199.0	193.5
80°	59.0	100.6	143.2	135.6	138.8
82.5°	38.3	76.5	88.5	100.6	103.9
85°	21.9	44.8	54.7	59.0	61.2
87.5°	9.8	16.4	21.9	21.9	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)