

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: P309941

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-CP250-W2A-U-2700K**

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: P309941
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-CP250-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (336) 2700K 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: 1843.0 lumens
Efficiency: N/A
Efficacy: 70.9 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

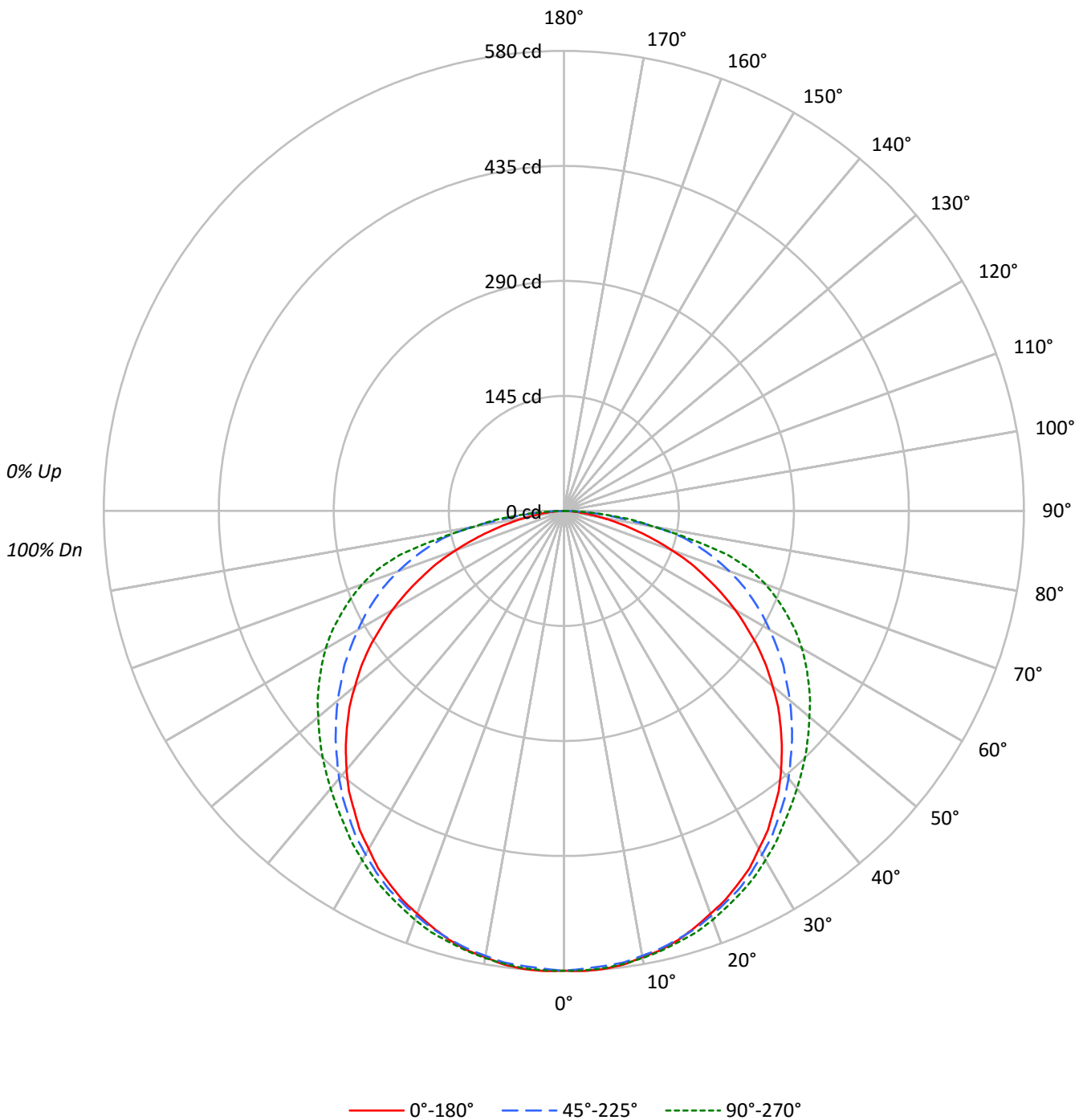
Input Watts (W): 26
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	780	780	780
5°	783	778	782
10°	781	778	782
15°	779	778	783
20°	774	777	785
25°	771	779	787
30°	764	777	790
35°	757	775	793
40°	748	774	803
45°	736	774	821
50°	719	779	846
55°	701	791	883
60°	672	807	932
65°	629	835	989
70°	572	874	1065
75°	485	922	1112
80°	383	928	900
85°	283	706	790



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.0	3.0
10°-20°	158.2	8.6
20°-30°	242.0	13.1
30°-40°	295.8	16.0
40°-50°	315.3	17.1
50°-60°	301.4	16.4
60°-70°	255.4	13.9
70°-80°	171.6	9.3
80°-90°	48.4	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°	455.2	24.7
0°-40°	751.0	40.7
0°-60°	1367.6	74.2
0°-90°	1843.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1843.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	580	579	576	579	579	55
15°	560	560	558	563	562	158
25°	519	521	525	529	530	239
35°	461	464	472	481	483	289
45°	387	393	407	424	432	298
55°	299	310	337	364	377	266
65°	198	218	262	297	311	196
75°	93	127	177	208	214	100
85°	18	38	46	49	51	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	579.6	579.6	579.6	579.6	579.6
2.5°	580.5	580.5	577.7	579.6	579.6
5°	579.6	578.7	575.9	578.7	578.7
7.5°	576.8	575.9	574.1	576.8	575.9
10°	571.3	571.3	569.5	572.3	572.3
12.5°	566.8	565.9	564.9	568.6	567.7
15°	559.5	559.5	558.5	563.1	562.2
17.5°	550.3	551.2	552.1	555.8	556.7
20°	540.3	542.1	543.0	548.5	548.5
22.5°	531.1	532.0	533.9	539.3	539.3
25°	519.2	521.1	524.7	529.3	530.2
27.5°	507.4	508.3	512.8	519.2	520.2
30°	491.8	494.6	500.0	507.4	508.3
32.5°	478.1	480.8	487.2	494.6	496.4
35°	460.7	464.4	471.7	480.8	482.7
37.5°	445.2	447.9	457.1	467.1	469.9
40°	426.0	431.5	440.6	452.5	457.1
42.5°	406.8	412.3	423.3	438.8	444.3
45°	386.7	393.1	406.8	424.2	431.5
47.5°	366.6	373.9	389.4	409.5	417.8
50°	343.7	352.9	372.1	394.9	404.1
52.5°	321.8	332.8	353.8	379.4	391.3
55°	298.9	309.9	337.3	363.8	376.6
57.5°	273.3	288.0	318.1	348.3	362.0
60°	249.6	263.3	299.8	332.8	346.5
62.5°	224.0	242.2	281.6	316.3	330.0
65°	197.5	217.6	262.4	297.1	310.8
67.5°	173.7	195.6	243.2	277.9	291.6
70°	145.3	172.8	222.1	256.9	270.6
72.5°	118.8	149.0	200.2	234.0	246.8
75°	93.2	127.1	177.3	207.5	213.9
77.5°	69.5	105.1	153.6	166.4	161.8
80°	49.4	84.1	119.8	113.4	116.1
82.5°	32.0	64.0	74.0	84.1	86.8
85°	18.3	37.5	45.7	49.4	51.2
87.5°	8.2	13.7	18.3	18.3	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)