

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: P309911

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-CA08-W2A-U-5500K**

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: P309911
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-CA08-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (336) 5500K 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: 2250.0 lumens
Efficiency: N/A
Efficacy: 84.3 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

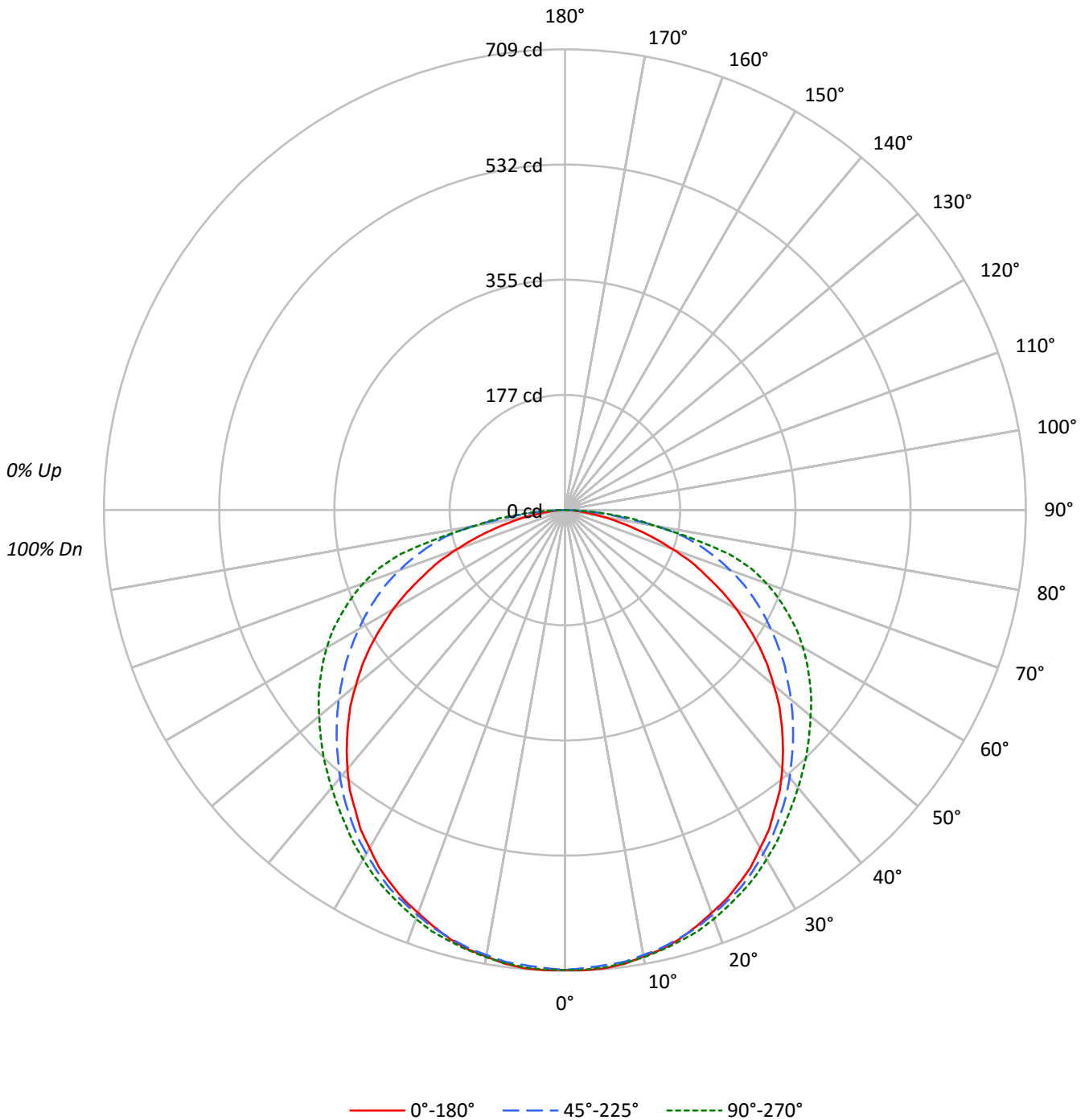
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	68	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°	952	952	952
5°	956	950	954
10°	953	950	954
15°	951	950	956
20°	944	949	959
25°	941	951	961
30°	933	948	964
35°	924	946	968
40°	914	945	980
45°	898	945	1002
50°	878	951	1033
55°	856	966	1079
60°	820	985	1138
65°	768	1020	1208
70°	698	1067	1299
75°	592	1125	1358
80°	467	1133	1098
85°	344	861	965



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.1	3.0
10°-20°	193.2	8.6
20°-30°	295.4	13.1
30°-40°	361.1	16.0
40°-50°	384.9	17.1
50°-60°	368.0	16.4
60°-70°	311.7	13.9
70°-80°	209.5	9.3
80°-90°	59.1	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°	555.7	24.7
0°-40°	916.8	40.7
0°-60°	1669.6	74.2
0°-90°	2250.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2250.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	708	706	703	706	706	67
15°	683	683	682	688	686	193
25°	634	636	641	646	647	292
35°	562	567	576	587	589	352
45°	472	480	497	518	527	364
55°	365	378	412	444	460	325
65°	241	266	320	363	379	239
75°	114	155	216	253	261	122
85°	22	46	56	60	62	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	707.6	707.6	707.6	707.6	707.6
2.5°	708.7	708.7	705.3	707.6	707.6
5°	707.6	706.4	703.1	706.4	706.4
7.5°	704.2	703.1	700.9	704.2	703.1
10°	697.5	697.5	695.3	698.6	698.6
12.5°	691.9	690.8	689.7	694.2	693.1
15°	683.0	683.0	681.9	687.5	686.4
17.5°	671.8	673.0	674.1	678.5	679.7
20°	659.6	661.8	662.9	669.6	669.6
22.5°	648.4	649.5	651.8	658.5	658.5
25°	633.9	636.1	640.6	646.2	647.3
27.5°	619.4	620.5	626.1	633.9	635.0
30°	600.4	603.8	610.5	619.4	620.5
32.5°	583.7	587.0	594.8	603.8	606.0
35°	562.5	566.9	575.9	587.0	589.3
37.5°	543.5	546.9	558.0	570.3	573.6
40°	520.1	526.8	537.9	552.4	558.0
42.5°	496.6	503.3	516.7	535.7	542.4
45°	472.1	479.9	496.6	517.8	526.8
47.5°	447.5	456.5	475.4	500.0	510.0
50°	419.6	430.8	454.2	482.1	493.3
52.5°	392.8	406.2	431.9	463.2	477.7
55°	364.9	378.3	411.8	444.2	459.8
57.5°	333.7	351.5	388.4	425.2	441.9
60°	304.7	321.4	366.1	406.2	423.0
62.5°	273.4	295.7	343.7	386.1	402.9
65°	241.1	265.6	320.3	362.7	379.4
67.5°	212.0	238.8	296.9	339.3	356.0
70°	177.4	210.9	271.2	313.6	330.3
72.5°	145.1	181.9	244.4	285.7	301.3
75°	113.8	155.1	216.5	253.3	261.2
77.5°	84.8	128.3	187.5	203.1	197.5
80°	60.3	102.7	146.2	138.4	141.7
82.5°	39.1	78.1	90.4	102.7	106.0
85°	22.3	45.8	55.8	60.3	62.5
87.5°	10.0	16.7	22.3	22.3	21.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)