

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: P309905

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-CA08-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: P309905
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-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC 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: 1986.0 lumens
Efficiency: N/A
Efficacy: 76.4 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

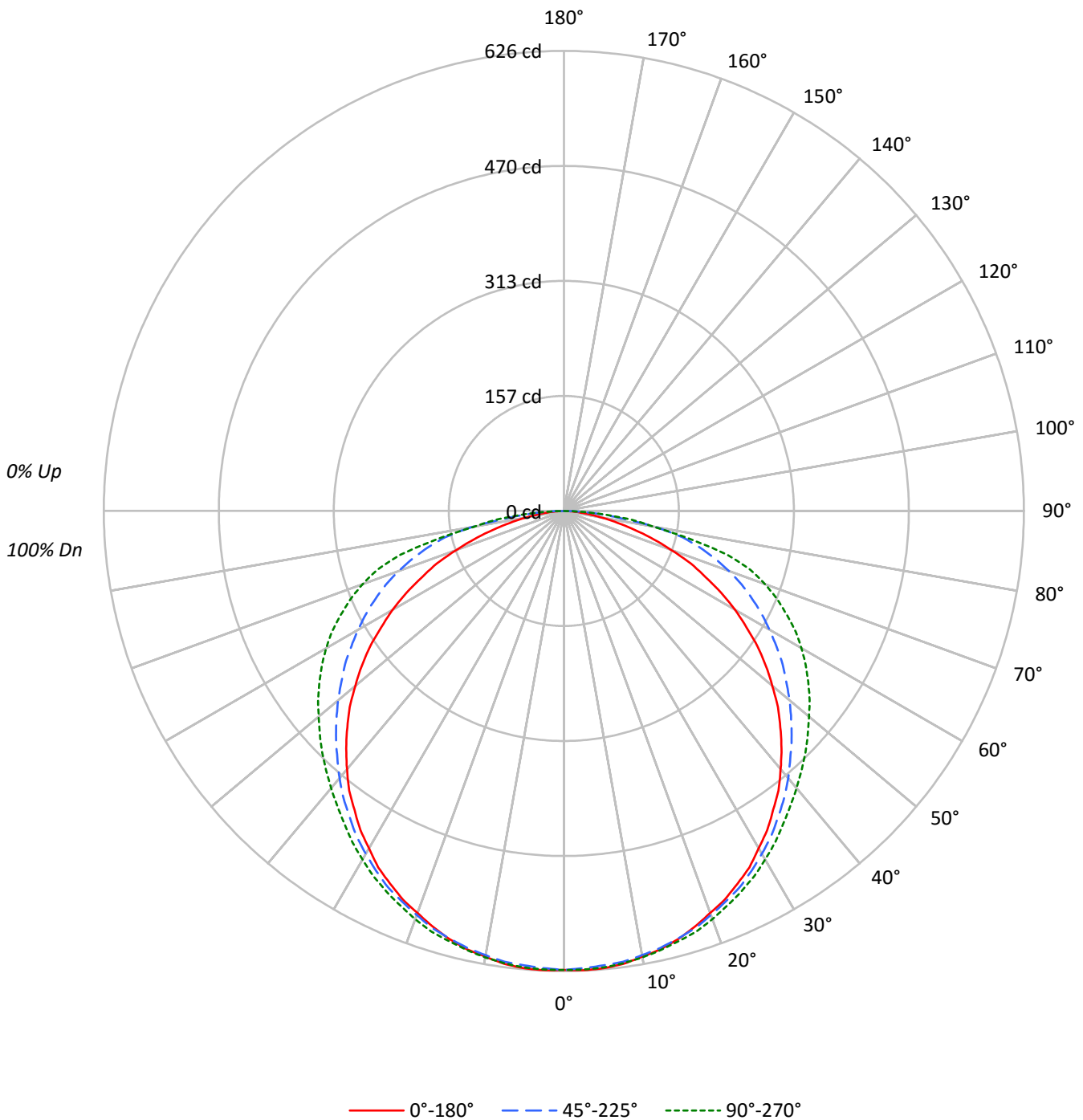
Input Watts (W): 26
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	840	840	840
5°	843	838	842
10°	841	838	843
15°	840	838	844
20°	834	838	846
25°	831	839	848
30°	823	837	851
35°	816	835	854
40°	806	834	865
45°	793	834	885
50°	775	839	911
55°	756	853	952
60°	724	869	1005
65°	677	900	1066
70°	616	942	1147
75°	522	993	1198
80°	412	1000	969
85°	304	761	852



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.2	3.0
10°-20°	170.5	8.6
20°-30°	260.7	13.1
30°-40°	318.7	16.0
40°-50°	339.7	17.1
50°-60°	324.8	16.4
60°-70°	275.1	13.9
70°-80°	184.9	9.3
80°-90°	52.2	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°	490.5	24.7
0°-40°	809.2	40.7
0°-60°	1473.7	74.2
0°-90°	1986.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1986.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	624	624	624	624	624	
5°	624	624	621	624	624	59
15°	603	603	602	607	606	170
25°	560	562	565	570	571	258
35°	496	500	508	518	520	311
45°	417	424	438	457	465	321
55°	322	334	364	392	406	287
65°	213	234	283	320	335	211
75°	100	137	191	224	230	108
85°	20	40	49	53	55	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	624.5	624.5	624.5	624.5	624.5
2.5°	625.5	625.5	622.6	624.5	624.5
5°	624.5	623.6	620.6	623.6	623.6
7.5°	621.6	620.6	618.6	621.6	620.6
10°	615.7	615.7	613.7	616.7	616.7
12.5°	610.7	609.8	608.8	612.7	611.7
15°	602.9	602.9	601.9	606.8	605.8
17.5°	593.0	594.0	595.0	598.9	599.9
20°	582.2	584.2	585.1	591.0	591.0
22.5°	572.3	573.3	575.3	581.2	581.2
25°	559.5	561.5	565.4	570.4	571.3
27.5°	546.7	547.7	552.6	559.5	560.5
30°	530.0	532.9	538.8	546.7	547.7
32.5°	515.2	518.2	525.0	532.9	534.9
35°	496.5	500.4	508.3	518.2	520.1
37.5°	479.7	482.7	492.5	503.4	506.3
40°	459.0	465.0	474.8	487.6	492.5
42.5°	438.4	444.3	456.1	472.8	478.7
45°	416.7	423.6	438.4	457.1	465.0
47.5°	395.0	402.9	419.6	441.3	450.2
50°	370.4	380.2	400.9	425.6	435.4
52.5°	346.7	358.6	381.2	408.8	421.6
55°	322.1	333.9	363.5	392.1	405.9
57.5°	294.5	310.3	342.8	375.3	390.1
60°	268.9	283.7	323.1	358.6	373.3
62.5°	241.3	261.0	303.4	340.8	355.6
65°	212.8	234.4	282.7	320.2	334.9
67.5°	187.2	210.8	262.0	299.5	314.2
70°	156.6	186.2	239.4	276.8	291.6
72.5°	128.1	160.6	215.7	252.2	266.0
75°	100.5	136.9	191.1	223.6	230.5
77.5°	74.9	113.3	165.5	179.3	174.4
80°	53.2	90.6	129.0	122.1	125.1
82.5°	34.5	69.0	79.8	90.6	93.6
85°	19.7	40.4	49.3	53.2	55.2
87.5°	8.9	14.8	19.7	19.7	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)