

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: P309932

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-CP187-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: P309932
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-CP187-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" 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: 1858.0 lumens
Efficiency: N/A
Efficacy: 71.5 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

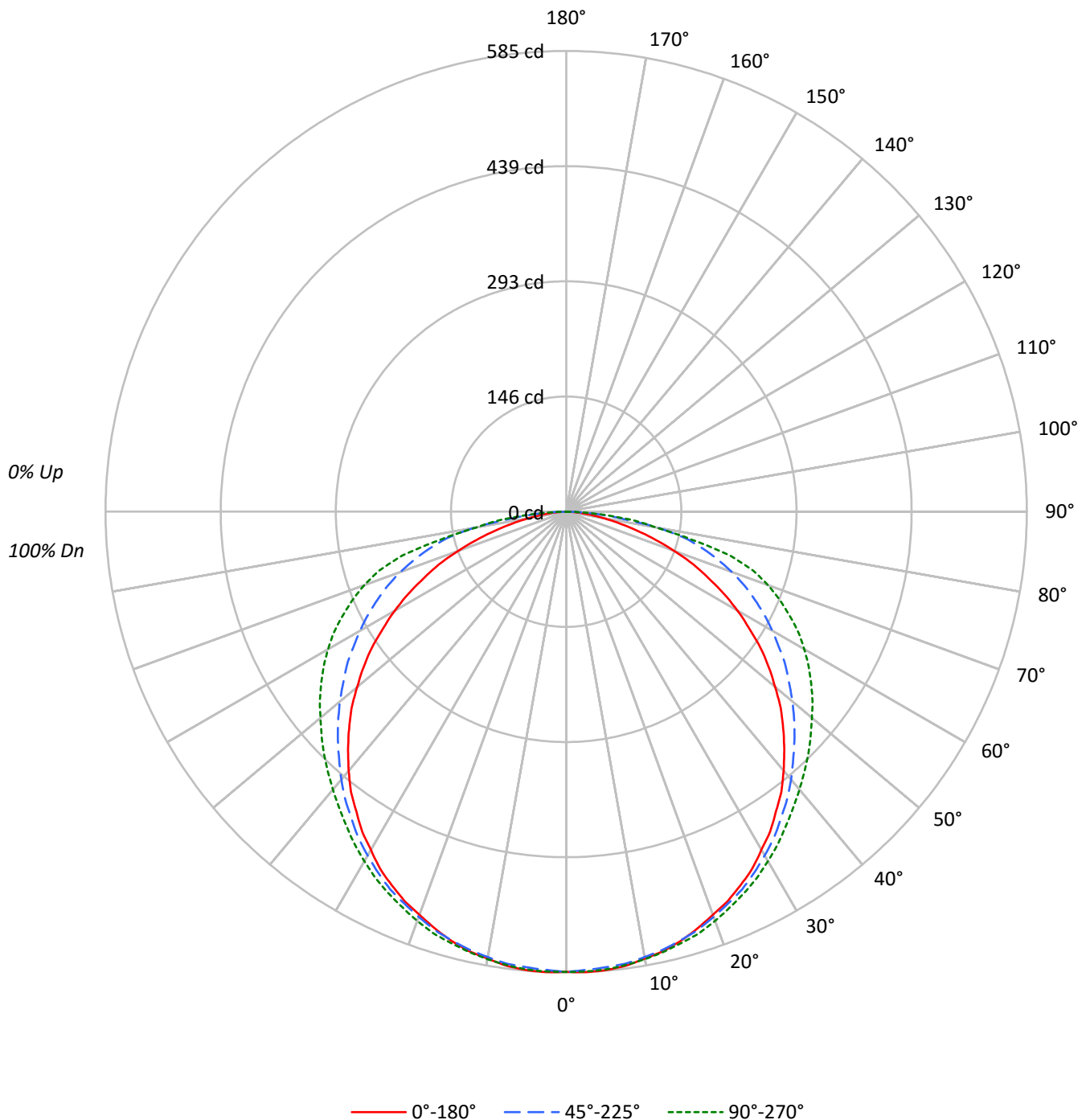
Input Watts (W): 26
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	68	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	786	786	786
5°	789	784	788
10°	787	784	788
15°	786	784	790
20°	780	784	792
25°	777	785	794
30°	770	783	796
35°	763	781	799
40°	754	780	809
45°	742	780	828
50°	725	785	853
55°	707	798	891
60°	677	813	940
65°	634	842	997
70°	576	881	1073
75°	489	930	1121
80°	386	935	907
85°	284	712	797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.4	3.0
10°-20°	159.5	8.6
20°-30°	243.9	13.1
30°-40°	298.2	16.0
40°-50°	317.8	17.1
50°-60°	303.9	16.4
60°-70°	257.4	13.9
70°-80°	173.0	9.3
80°-90°	48.8	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°	458.9	24.7
0°-40°	757.1	40.7
0°-60°	1378.8	74.2
0°-90°	1858.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1858.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	584	584	584	584	584	
5°	584	583	581	583	583	56
15°	564	564	563	568	567	159
25°	524	525	529	534	534	241
35°	464	468	476	485	487	291
45°	390	396	410	428	435	301
55°	301	312	340	367	380	268
65°	199	219	264	300	313	198
75°	94	128	179	209	216	101
85°	18	38	46	50	52	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	584.3	584.3	584.3	584.3	584.3
2.5°	585.2	585.2	582.4	584.3	584.3
5°	584.3	583.4	580.6	583.4	583.4
7.5°	581.5	580.6	578.8	581.5	580.6
10°	576.0	576.0	574.2	576.9	576.9
12.5°	571.4	570.5	569.5	573.2	572.3
15°	564.0	564.0	563.1	567.7	566.8
17.5°	554.8	555.7	556.6	560.3	561.2
20°	544.7	546.5	547.4	553.0	553.0
22.5°	535.4	536.4	538.2	543.7	543.7
25°	523.5	525.3	529.0	533.6	534.5
27.5°	511.5	512.4	517.0	523.5	524.4
30°	495.8	498.6	504.1	511.5	512.4
32.5°	482.0	484.8	491.2	498.6	500.4
35°	464.5	468.2	475.5	484.8	486.6
37.5°	448.8	451.6	460.8	470.9	473.7
40°	429.5	435.0	444.2	456.2	460.8
42.5°	410.1	415.6	426.7	442.4	447.9
45°	389.8	396.3	410.1	427.6	435.0
47.5°	369.6	376.9	392.6	412.9	421.2
50°	346.5	355.7	375.1	398.1	407.3
52.5°	324.4	335.5	356.7	382.5	394.4
55°	301.4	312.4	340.1	366.8	379.7
57.5°	275.6	290.3	320.7	351.1	364.9
60°	251.6	265.4	302.3	335.5	349.3
62.5°	225.8	244.2	283.8	318.9	332.7
65°	199.1	219.3	264.5	299.5	313.3
67.5°	175.1	197.2	245.1	280.2	294.0
70°	146.5	174.2	223.9	259.0	272.8
72.5°	119.8	150.2	201.8	235.9	248.8
75°	94.0	128.1	178.8	209.2	215.7
77.5°	70.0	106.0	154.8	167.7	163.1
80°	49.8	84.8	120.7	114.3	117.0
82.5°	32.3	64.5	74.6	84.8	87.6
85°	18.4	37.8	46.1	49.8	51.6
87.5°	8.3	13.8	18.4	18.4	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)