

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: P309266

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-HRP-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: P309266
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-HRP-CP250-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 2078.0 lumens
Efficiency: N/A
Efficacy: 79.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

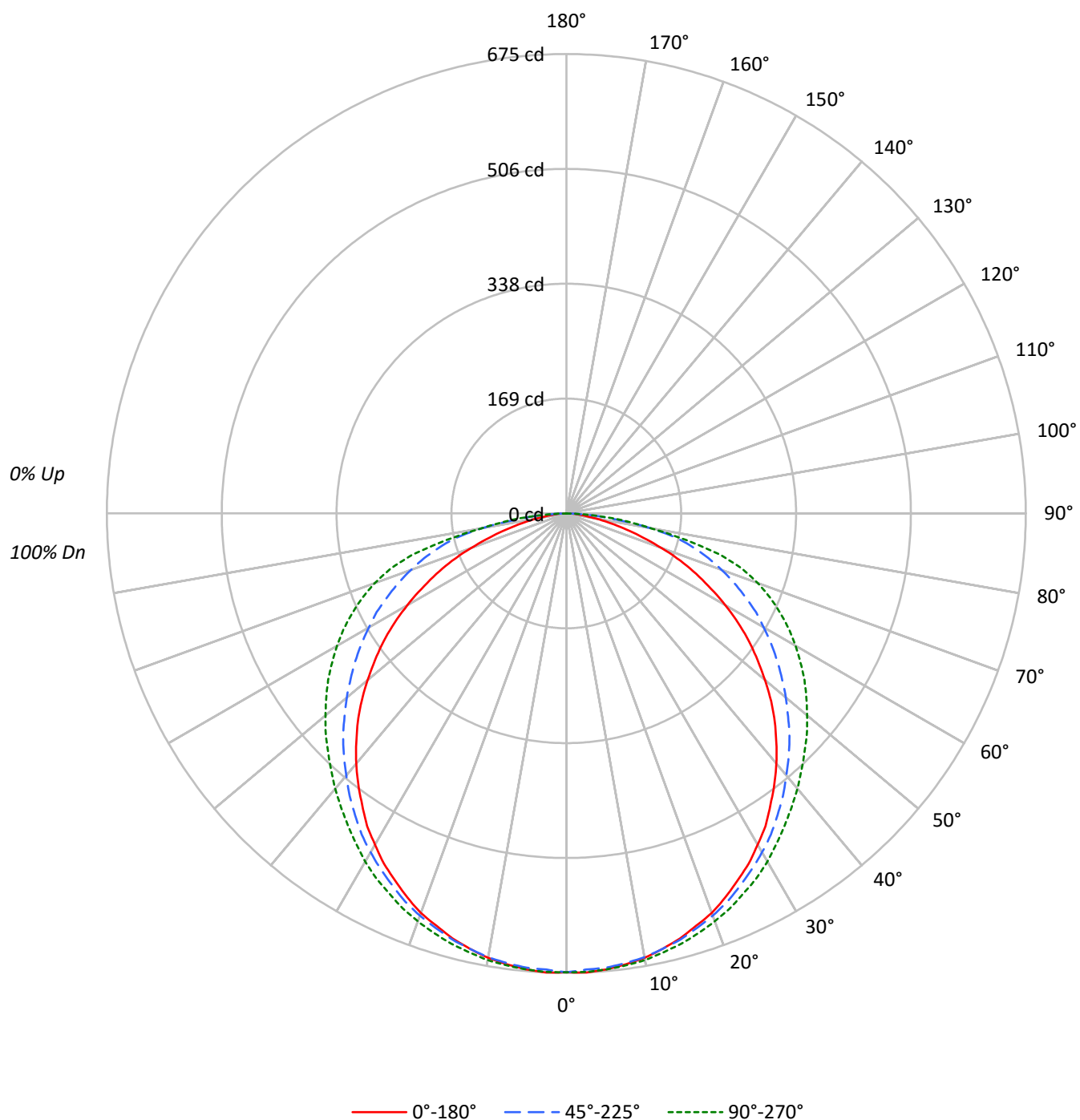
Input Watts (W): 26
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	907	907	907
5°	908	905	908
10°	906	904	910
15°	900	903	911
20°	894	901	913
25°	883	896	914
30°	873	893	918
35°	859	889	919
40°	843	883	928
45°	824	882	942
50°	798	881	967
55°	769	888	1002
60°	726	901	1047
65°	670	922	1105
70°	585	955	1177
75°	475	1004	1216
80°	350	984	984
85°	269	726	820



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	3.1
10°-20°	183.4	8.8
20°-30°	279.2	13.4
30°-40°	339.0	16.3
40°-50°	358.2	17.2
50°-60°	338.0	16.3
60°-70°	281.0	13.5
70°-80°	184.9	8.9
80°-90°	50.4	2.4
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°	526.5	25.3
0°-40°	865.5	41.7
0°-60°	1561.7	75.2
0°-90°	2078.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2078.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	672	672	670	672	672	64
15°	646	647	648	654	654	182
25°	595	598	604	614	616	274
35°	523	529	541	555	559	327
45°	433	442	464	486	495	334
55°	328	342	378	414	427	292
65°	210	235	290	332	347	208
75°	91	133	193	229	234	98
85°	17	38	47	52	53	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	674.2	674.2	674.2	674.2	674.2
2.5°	675.1	674.2	670.7	674.2	674.2
5°	672.5	672.5	669.9	672.5	672.5
7.5°	668.1	668.1	666.4	669.9	669.9
10°	662.9	662.9	662.0	666.4	666.4
12.5°	655.1	655.9	655.1	660.3	660.3
15°	646.4	647.2	648.1	654.2	654.2
17.5°	635.1	636.8	638.5	645.5	646.4
20°	624.6	625.5	629.0	636.8	637.7
22.5°	610.7	613.3	617.7	625.5	628.1
25°	595.0	598.5	603.7	614.2	615.9
27.5°	580.3	582.9	589.8	601.1	604.6
30°	562.0	566.3	575.0	586.3	590.7
32.5°	544.6	548.9	559.4	571.6	575.0
35°	522.8	528.9	541.1	555.0	559.4
37.5°	502.0	508.0	522.8	538.5	543.7
40°	480.2	487.2	502.8	521.1	528.1
42.5°	456.7	466.3	483.7	503.7	511.5
45°	433.2	441.9	463.7	486.3	495.0
47.5°	408.0	418.4	441.9	468.9	479.3
50°	381.0	394.1	421.1	450.6	461.9
52.5°	354.1	368.9	399.3	432.4	444.5
55°	328.0	341.9	378.4	414.1	427.1
57.5°	299.3	316.7	356.7	395.0	408.0
60°	269.7	288.8	334.9	374.9	388.9
62.5°	240.1	261.9	314.1	354.1	368.9
65°	210.5	234.9	289.7	332.3	347.1
67.5°	181.8	208.8	267.1	309.7	324.5
70°	148.8	182.7	242.7	284.5	299.3
72.5°	118.3	157.5	219.2	258.4	271.4
75°	91.3	133.1	193.1	228.8	234.0
77.5°	67.0	108.7	166.2	178.3	179.2
80°	45.2	87.0	127.0	125.3	127.0
82.5°	29.6	65.2	80.0	89.6	90.5
85°	17.4	38.3	47.0	52.2	53.1
87.5°	8.7	13.0	16.5	17.4	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)