

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: P307923

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-CP250-W2A-U-5700K**

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: P307923
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-S-CP250-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 5700K 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: 2739.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

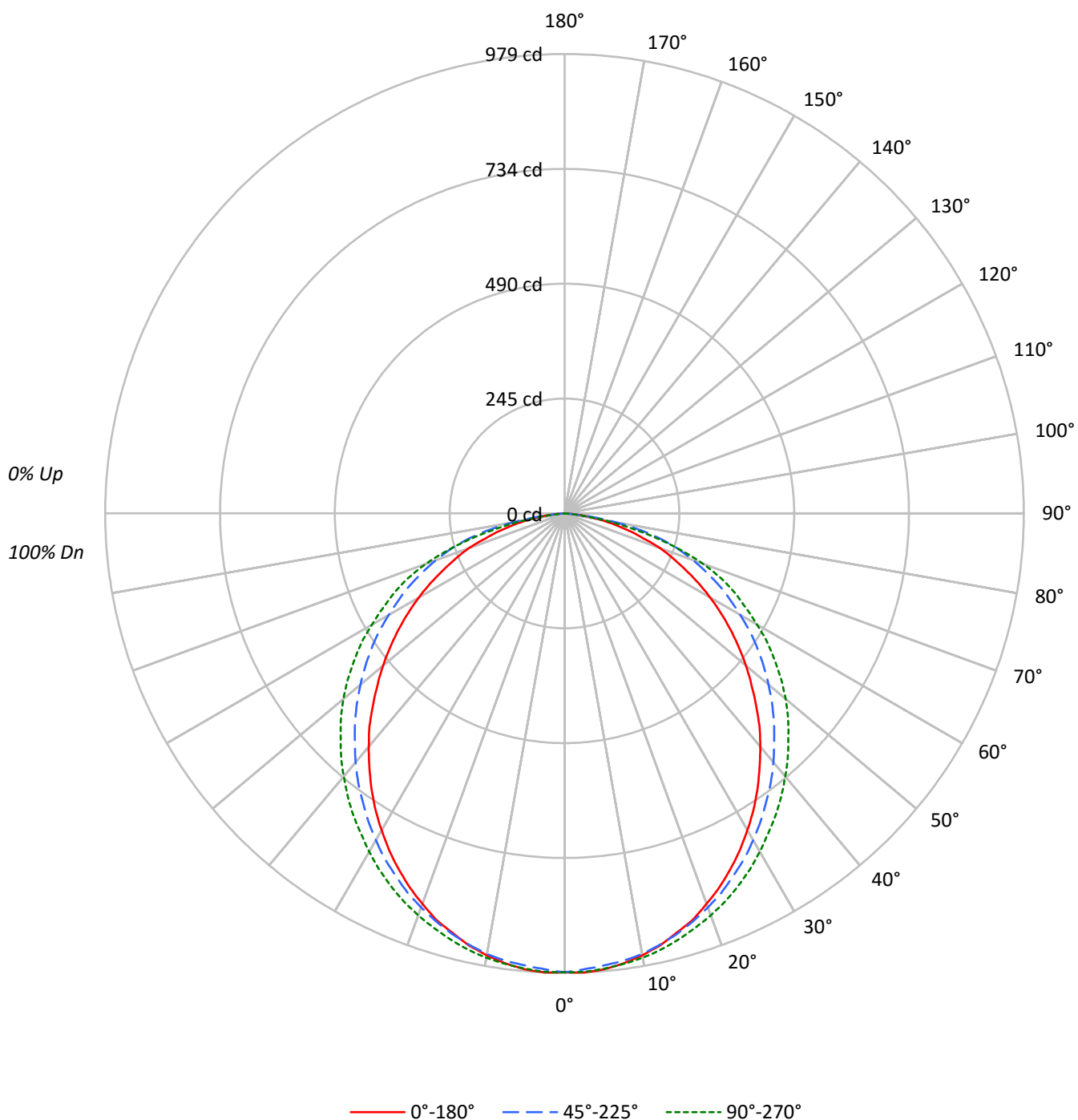
Input Watts (W): 24.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2631	2631	2631
5°	2634	2612	2630
10°	2612	2605	2627
15°	2576	2584	2618
20°	2536	2559	2609
25°	2484	2528	2601
30°	2422	2498	2587
35°	2355	2462	2578
40°	2280	2433	2571
45°	2197	2403	2568
50°	2115	2377	2575
55°	2026	2358	2568
60°	1929	2324	2551
65°	1816	2318	2551
70°	1710	2297	2479
75°	1483	2245	2118
80°	1199	1810	1410
85°	797	630	420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	3.4
10°-20°	262.7	9.6
20°-30°	394.1	14.4
30°-40°	470.1	17.2
40°-50°	486.0	17.7
50°-60°	443.7	16.2
60°-70°	349.2	12.7
70°-80°	203.3	7.4
80°-90°	37.4	1.4
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°	749.2	27.4
0°-40°	1219.3	44.5
0°-60°	2149.1	78.5
0°-90°	2739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2739.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	978	978	978	978	978	
5°	975	972	967	975	974	92
15°	925	926	928	940	940	261
25°	836	841	852	872	876	385
35°	717	726	750	778	785	448
45°	577	596	632	667	675	446
55°	432	455	502	539	547	386
65°	285	315	364	392	401	283
75°	143	176	216	212	204	152
85°	26	37	20	16	14	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	977.8	977.8	977.8	977.8	977.8
2.5°	979.1	976.4	972.3	979.1	977.8
5°	975.1	972.3	966.9	975.1	973.7
7.5°	966.9	964.2	961.5	969.6	968.3
10°	956.0	954.7	953.3	962.8	961.5
12.5°	942.5	942.5	941.1	952.0	952.0
15°	924.8	926.2	927.5	939.8	939.8
17.5°	908.5	907.2	911.2	924.8	926.2
20°	885.4	888.1	893.6	909.9	911.2
22.5°	862.3	865.1	874.6	890.9	894.9
25°	836.5	840.6	851.5	871.9	875.9
27.5°	809.4	814.8	829.8	851.5	855.6
30°	779.5	787.7	804.0	828.4	832.5
32.5°	749.6	757.8	778.1	802.6	808.0
35°	717.0	726.5	749.6	778.1	784.9
37.5°	683.1	695.3	722.5	751.0	759.1
40°	649.1	662.7	692.6	722.5	732.0
42.5°	615.2	628.8	661.4	695.3	704.8
45°	577.2	596.2	631.5	666.8	674.9
47.5°	540.5	560.9	600.2	635.6	646.4
50°	505.2	525.6	567.7	604.3	615.2
52.5°	468.5	490.2	535.1	573.1	582.6
55°	431.9	454.9	502.5	539.1	547.3
57.5°	395.2	419.6	468.5	503.8	513.3
60°	358.5	384.3	431.9	467.2	474.0
62.5°	321.9	349.0	397.9	429.1	435.9
65°	285.2	315.1	364.0	392.5	400.6
67.5°	249.9	279.8	327.3	354.4	361.2
70°	217.3	244.4	292.0	312.3	315.1
72.5°	176.5	210.5	256.7	267.5	260.7
75°	142.6	176.5	215.9	211.9	203.7
77.5°	108.6	142.6	168.4	154.8	144.0
80°	77.4	111.4	116.8	96.4	91.0
82.5°	50.2	77.4	65.2	50.2	40.7
85°	25.8	36.7	20.4	16.3	13.6
87.5°	8.1	5.4	2.7	2.7	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)