

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: P307919

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-CP250-W2A-U-4000K**

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: P307919
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-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 4000K 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: 2623.0 lumens
Efficiency: N/A
Efficacy: 108.8 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

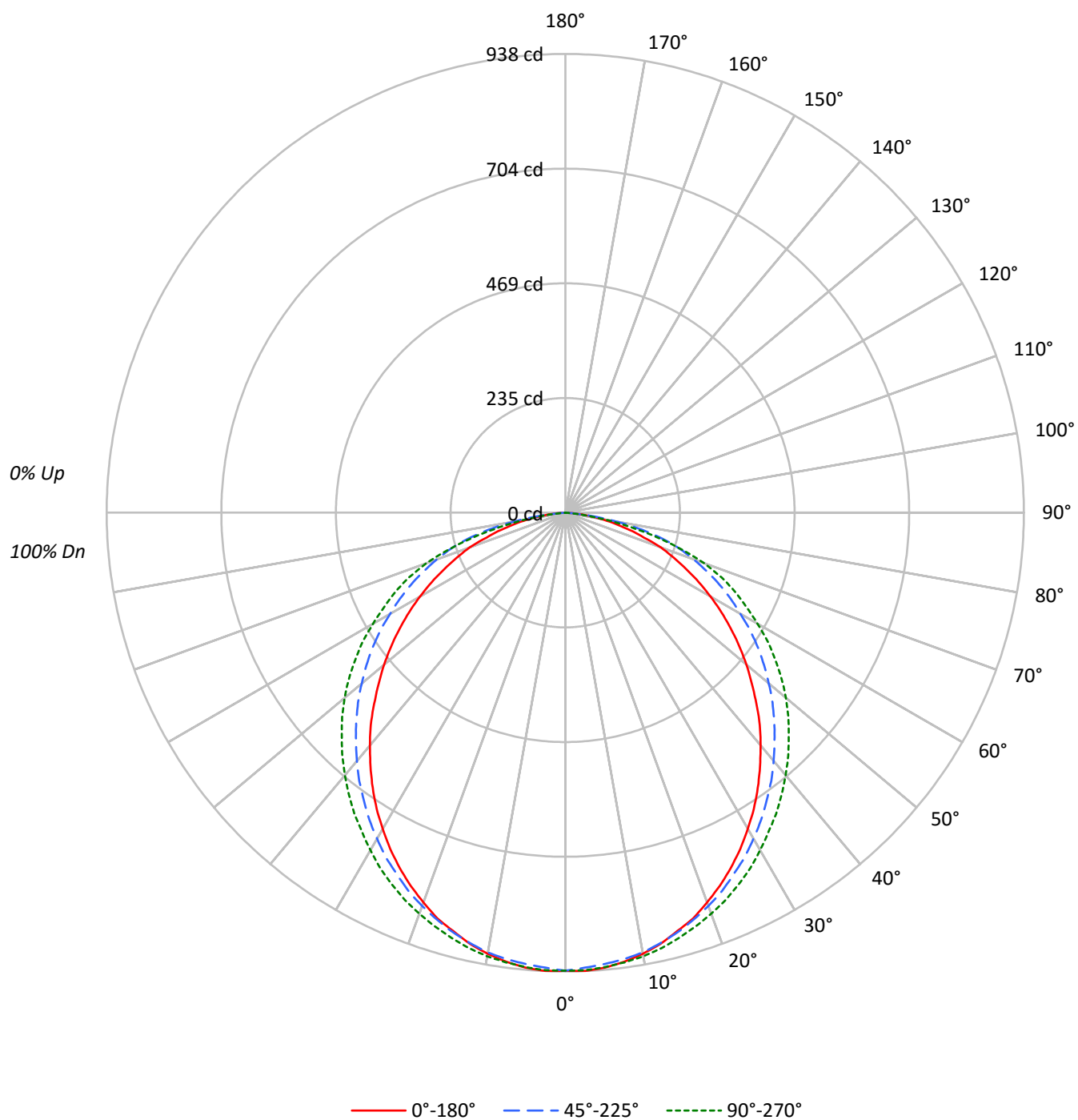
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2520	2520	2520
5°	2522	2501	2519
10°	2502	2495	2516
15°	2467	2474	2507
20°	2428	2450	2499
25°	2379	2421	2491
30°	2320	2392	2477
35°	2256	2358	2469
40°	2184	2330	2462
45°	2103	2301	2460
50°	2025	2276	2466
55°	1940	2258	2459
60°	1848	2226	2443
65°	1739	2219	2443
70°	1637	2200	2374
75°	1420	2150	2028
80°	1148	1733	1350
85°	763	602	401



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	3.4
10°-20°	251.6	9.6
20°-30°	377.4	14.4
30°-40°	450.2	17.2
40°-50°	465.4	17.7
50°-60°	425.0	16.2
60°-70°	334.4	12.7
70°-80°	194.7	7.4
80°-90°	35.9	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°	717.4	27.4
0°-40°	1167.7	44.5
0°-60°	2058.1	78.5
0°-90°	2623.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2623.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	936	936	936	936	936	
5°	934	931	926	934	932	89
15°	886	887	888	900	900	250
25°	801	805	815	835	839	369
35°	687	696	718	745	752	429
45°	553	571	605	639	646	427
55°	414	436	481	516	524	370
65°	273	302	348	376	384	271
75°	137	169	207	203	195	145
85°	25	35	20	16	13	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	936.4	936.4	936.4	936.4	936.4
2.5°	937.7	935.1	931.2	937.7	936.4
5°	933.8	931.2	926.0	933.8	932.5
7.5°	926.0	923.4	920.8	928.6	927.3
10°	915.6	914.3	913.0	922.1	920.8
12.5°	902.6	902.6	901.3	911.7	911.7
15°	885.6	886.9	888.2	900.0	900.0
17.5°	870.0	868.7	872.6	885.6	886.9
20°	847.9	850.5	855.7	871.3	872.6
22.5°	825.8	828.4	837.5	853.1	857.0
25°	801.1	805.0	815.4	834.9	838.8
27.5°	775.1	780.3	794.6	815.4	819.3
30°	746.5	754.3	769.9	793.3	797.2
32.5°	717.9	725.7	745.2	768.6	773.8
35°	686.7	695.8	717.9	745.2	751.7
37.5°	654.2	665.9	691.9	719.2	727.0
40°	621.6	634.6	663.3	691.9	701.0
42.5°	589.1	602.1	633.3	665.9	675.0
45°	552.7	570.9	604.7	638.6	646.4
47.5°	517.6	537.1	574.8	608.6	619.0
50°	483.8	503.3	543.6	578.7	589.1
52.5°	448.7	469.5	512.4	548.8	557.9
55°	413.6	435.7	481.2	516.3	524.1
57.5°	378.4	401.9	448.7	482.5	491.6
60°	343.3	368.0	413.6	447.4	453.9
62.5°	308.2	334.2	381.0	411.0	417.5
65°	273.1	301.7	348.5	375.8	383.7
67.5°	239.3	267.9	313.4	339.4	345.9
70°	208.1	234.1	279.6	299.1	301.7
72.5°	169.1	201.6	245.8	256.2	249.7
75°	136.6	169.1	206.8	202.9	195.1
77.5°	104.0	136.6	161.3	148.3	137.9
80°	74.1	106.6	111.8	92.3	87.1
82.5°	48.1	74.1	62.4	48.1	39.0
85°	24.7	35.1	19.5	15.6	13.0
87.5°	7.8	5.2	2.6	2.6	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)