

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: P307920

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-CP250-W2A-U-4500K**

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: P307920
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-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 4500K 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: 2669.0 lumens
Efficiency: N/A
Efficacy: 110.3 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

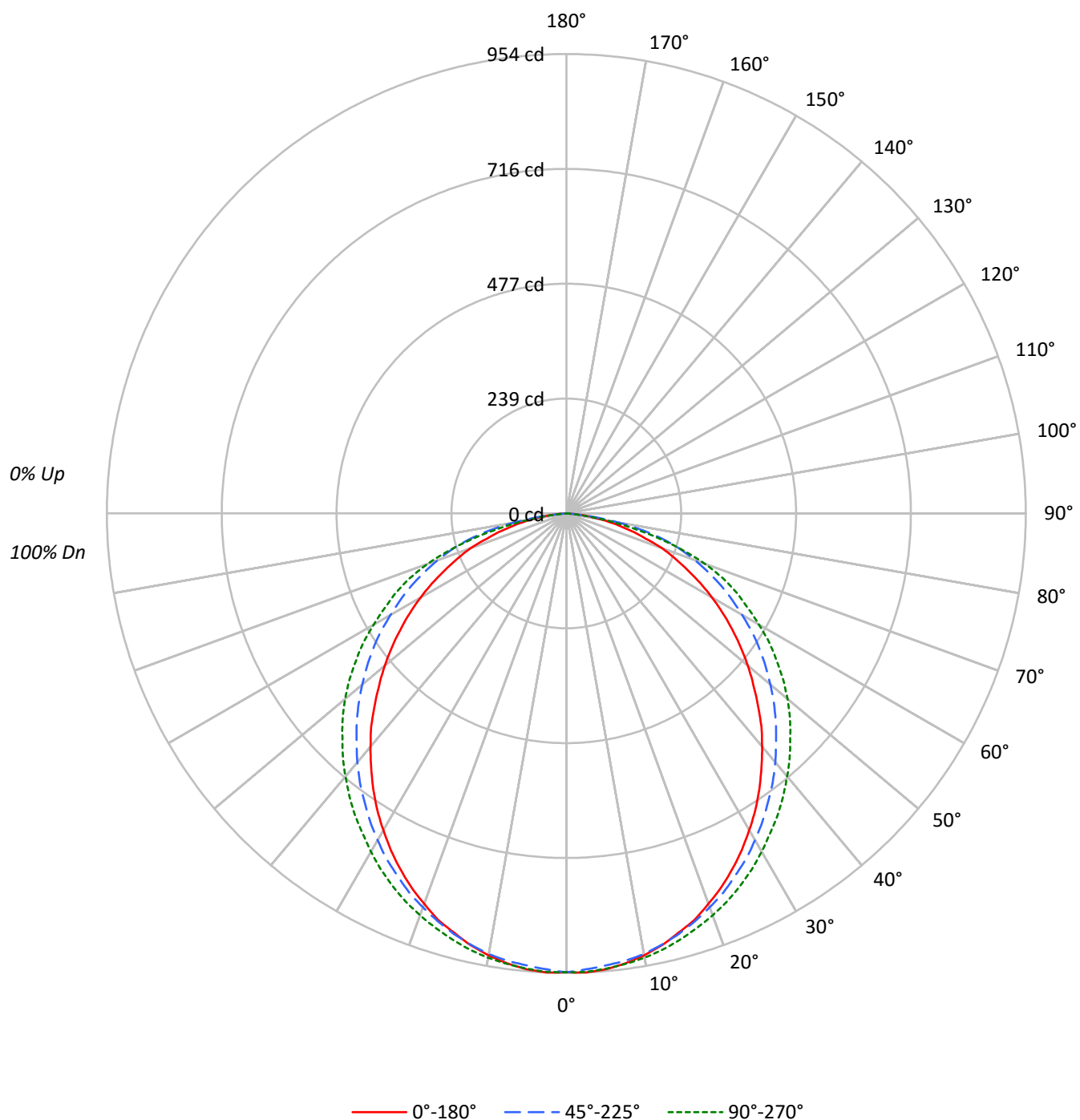
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2564	2564	2564
5°	2566	2545	2563
10°	2546	2538	2560
15°	2511	2518	2551
20°	2471	2493	2543
25°	2420	2464	2534
30°	2360	2434	2521
35°	2295	2400	2513
40°	2222	2371	2506
45°	2140	2342	2503
50°	2061	2316	2510
55°	1974	2297	2502
60°	1880	2265	2485
65°	1769	2258	2486
70°	1666	2238	2415
75°	1444	2188	2064
80°	1168	1764	1375
85°	775	611	408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.0	3.4
10°-20°	256.0	9.6
20°-30°	384.0	14.4
30°-40°	458.1	17.2
40°-50°	473.6	17.7
50°-60°	432.4	16.2
60°-70°	340.3	12.7
70°-80°	198.1	7.4
80°-90°	36.5	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°	730.0	27.4
0°-40°	1188.1	44.5
0°-60°	2094.1	78.5
0°-90°	2669.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2669.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	953	953	953	953	953	
5°	950	948	942	950	949	90
15°	901	902	904	916	916	254
25°	815	819	830	850	854	375
35°	699	708	730	758	765	437
45°	562	581	615	650	658	434
55°	421	443	490	525	533	376
65°	278	307	355	382	390	276
75°	139	172	210	206	198	148
85°	25	36	20	16	13	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	952.8	952.8	952.8	952.8	952.8
2.5°	954.1	951.5	947.5	954.1	952.8
5°	950.1	947.5	942.2	950.1	948.8
7.5°	942.2	939.6	936.9	944.8	943.5
10°	931.6	930.3	929.0	938.2	936.9
12.5°	918.4	918.4	917.1	927.6	927.6
15°	901.2	902.5	903.8	915.7	915.7
17.5°	885.3	884.0	887.9	901.2	902.5
20°	862.8	865.4	870.7	886.6	887.9
22.5°	840.3	843.0	852.2	868.1	872.1
25°	815.2	819.1	829.7	849.6	853.5
27.5°	788.7	794.0	808.5	829.7	833.7
30°	759.6	767.5	783.4	807.2	811.2
32.5°	730.5	738.4	758.3	782.1	787.4
35°	698.7	708.0	730.5	758.3	764.9
37.5°	665.6	677.5	704.0	731.8	739.7
40°	632.5	645.8	674.9	704.0	713.3
42.5°	599.5	612.7	644.5	677.5	686.8
45°	562.4	580.9	615.3	649.7	657.7
47.5°	526.7	546.5	584.9	619.3	629.9
50°	492.3	512.1	553.1	588.9	599.5
52.5°	456.5	477.7	521.4	558.4	567.7
55°	420.8	443.3	489.6	525.4	533.3
57.5°	385.1	408.9	456.5	491.0	500.2
60°	349.4	374.5	420.8	455.2	461.8
62.5°	313.6	340.1	387.7	418.2	424.8
65°	277.9	307.0	354.6	382.4	390.4
67.5°	243.5	272.6	318.9	345.4	352.0
70°	211.7	238.2	284.5	304.4	307.0
72.5°	172.0	205.1	250.1	260.7	254.1
75°	138.9	172.0	210.4	206.4	198.5
77.5°	105.9	138.9	164.1	150.9	140.3
80°	75.4	108.5	113.8	94.0	88.7
82.5°	49.0	75.4	63.5	49.0	39.7
85°	25.1	35.7	19.8	15.9	13.2
87.5°	7.9	5.3	2.6	2.6	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)