

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: P307198

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-CP250-W2A-U-3500K**

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: P307198
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L82765-HRP-CP250-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 3500K 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: 2556.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

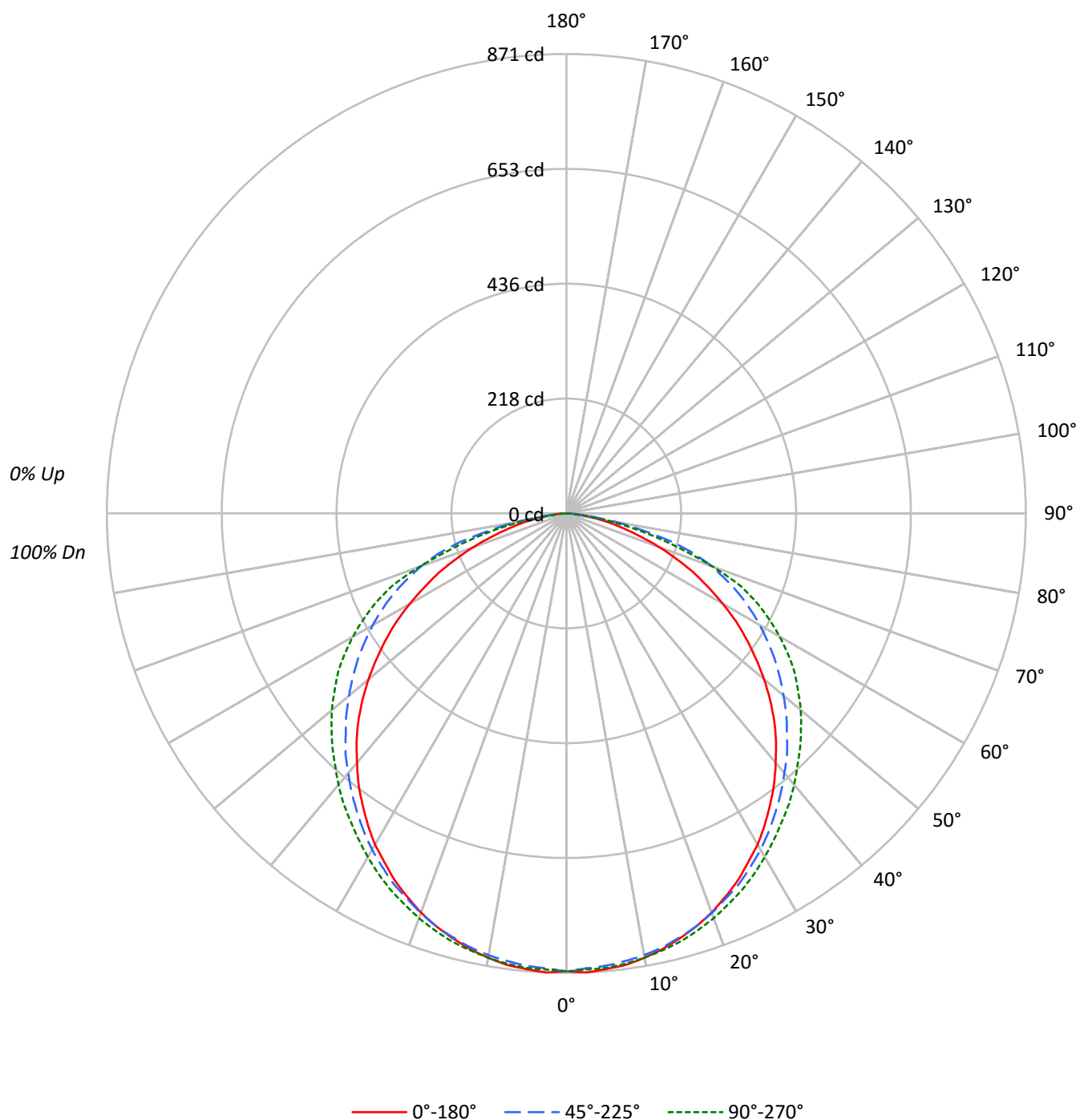
Input Watts (W): 33.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2336	2336	2336
5°	2343	2325	2336
10°	2337	2323	2337
15°	2322	2318	2340
20°	2306	2308	2338
25°	2282	2301	2339
30°	2253	2288	2338
35°	2213	2271	2342
40°	2168	2259	2360
45°	2123	2251	2386
50°	2049	2251	2429
55°	1961	2262	2481
60°	1843	2280	2513
65°	1699	2303	2528
70°	1480	2308	2327
75°	1220	2148	1880
80°	959	1545	1258
85°	744	596	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.2	3.2
10°-20°	235.8	9.2
20°-30°	358.1	14.0
30°-40°	433.9	17.0
40°-50°	457.2	17.9
50°-60°	426.8	16.7
60°-70°	341.1	13.3
70°-80°	187.7	7.3
80°-90°	33.1	1.3
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°	676.1	26.5
0°-40°	1110.0	43.4
0°-60°	1994.0	78.0
0°-90°	2556.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2556.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	868	868	868	868	868	
5°	867	865	861	866	865	82
15°	834	834	832	840	840	235
25°	768	770	775	786	788	354
35°	674	680	691	709	713	421
45°	558	568	592	618	627	429
55°	418	439	482	516	529	373
65°	267	301	362	391	397	263
75°	117	168	207	186	181	126
85°	24	30	19	12	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	868.0	868.0	868.0	868.0	868.0
2.5°	871.2	868.8	863.2	868.0	865.6
5°	867.2	864.8	860.8	866.4	864.8
7.5°	863.2	860.0	856.0	862.4	860.8
10°	855.2	852.8	850.3	856.0	855.2
12.5°	845.5	844.7	842.3	848.7	847.9
15°	833.5	833.5	831.9	839.9	839.9
17.5°	820.6	819.8	820.6	829.5	828.6
20°	805.3	805.3	806.1	816.6	816.6
22.5°	786.9	787.7	790.1	802.9	802.1
25°	768.4	770.0	774.8	786.0	787.7
27.5°	745.9	749.9	755.5	769.2	770.8
30°	725.0	727.4	736.2	749.1	752.3
32.5°	700.1	704.9	714.5	729.0	733.0
35°	673.5	680.0	691.2	708.9	712.9
37.5°	647.0	652.6	667.9	686.4	693.6
40°	617.3	626.9	643.0	663.9	671.9
42.5°	588.3	598.0	619.7	641.4	648.6
45°	557.8	568.2	591.5	618.1	626.9
47.5°	524.0	536.1	565.8	594.0	603.6
50°	489.5	504.7	537.7	569.0	580.3
52.5°	453.3	472.6	510.4	543.3	553.8
55°	417.9	438.8	482.2	516.0	528.9
57.5°	381.8	404.3	453.3	491.9	499.1
60°	342.4	369.7	423.6	457.3	467.0
62.5°	303.8	335.2	393.0	425.2	433.2
65°	266.8	300.6	361.7	391.4	397.0
67.5°	226.7	266.8	327.1	354.4	356.1
70°	188.1	234.7	293.4	306.2	295.8
72.5°	150.3	200.1	254.0	243.5	234.7
75°	117.3	168.0	206.6	185.7	180.8
77.5°	86.8	137.4	147.9	136.6	127.8
80°	61.9	108.5	99.7	85.2	81.2
82.5°	42.6	68.3	54.7	42.6	37.0
85°	24.1	30.5	19.3	12.1	9.6
87.5°	10.4	7.2	4.0	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)