

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: P307204

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-CP250-W2A-U-6500K**

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: P307204
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-6500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 6500K 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: 2736.0 lumens
Efficiency: N/A
Efficacy: 78.6 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

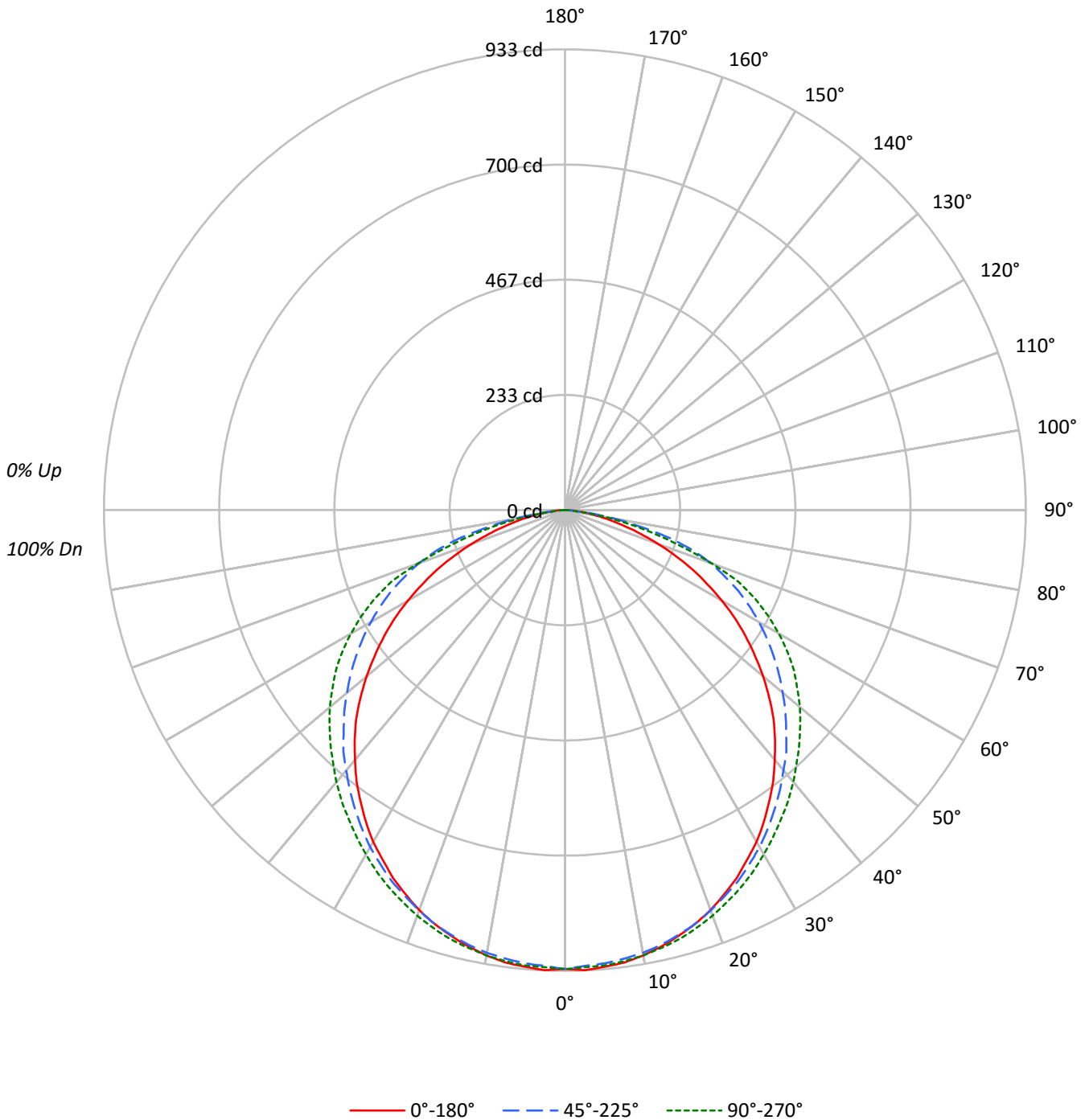
Input Watts (W): 34.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2500	2500	2500
5°	2508	2489	2501
10°	2501	2487	2501
15°	2486	2481	2505
20°	2469	2471	2503
25°	2442	2463	2503
30°	2411	2449	2502
35°	2369	2431	2507
40°	2321	2418	2526
45°	2272	2410	2554
50°	2193	2410	2601
55°	2099	2422	2656
60°	1972	2440	2690
65°	1819	2465	2706
70°	1584	2471	2491
75°	1306	2299	2013
80°	1026	1654	1347
85°	797	636	318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.0	3.2
10°-20°	252.4	9.2
20°-30°	383.3	14.0
30°-40°	464.4	17.0
40°-50°	489.4	17.9
50°-60°	456.9	16.7
60°-70°	365.1	13.3
70°-80°	200.9	7.3
80°-90°	35.5	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°	723.7	26.5
0°-40°	1188.1	43.4
0°-60°	2134.5	78.0
0°-90°	2736.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2736.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	928	926	921	927	926	88
15°	892	892	890	899	899	252
25°	822	824	829	841	843	379
35°	721	728	740	759	763	451
45°	597	608	633	662	671	459
55°	447	470	516	552	566	399
65°	286	322	387	419	425	281
75°	126	180	221	199	194	135
85°	26	33	21	13	10	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	929.2	929.2	929.2	929.2	929.2
2.5°	932.6	930.0	924.0	929.2	926.6
5°	928.3	925.7	921.4	927.4	925.7
7.5°	924.0	920.6	916.3	923.1	921.4
10°	915.4	912.8	910.2	916.3	915.4
12.5°	905.1	904.2	901.6	908.5	907.7
15°	892.2	892.2	890.4	899.0	899.0
17.5°	878.4	877.5	878.4	887.9	887.0
20°	862.1	862.1	862.9	874.1	874.1
22.5°	842.3	843.1	845.7	859.5	858.6
25°	822.5	824.2	829.4	841.4	843.1
27.5°	798.4	802.7	808.7	823.3	825.1
30°	776.0	778.6	788.1	801.8	805.3
32.5°	749.3	754.5	764.8	780.3	784.6
35°	721.0	727.8	739.9	758.8	763.1
37.5°	692.6	698.6	714.9	734.7	742.5
40°	660.7	671.1	688.3	710.6	719.2
42.5°	629.8	640.1	663.3	686.5	694.3
45°	597.1	608.3	633.2	661.6	671.1
47.5°	560.9	573.8	605.7	635.8	646.1
50°	523.9	540.3	575.6	609.1	621.2
52.5°	485.2	505.9	546.3	581.6	592.8
55°	447.4	469.7	516.2	552.3	566.1
57.5°	408.7	432.7	485.2	526.5	534.3
60°	366.5	395.8	453.4	489.5	499.9
62.5°	325.2	358.8	420.7	455.1	463.7
65°	285.6	321.8	387.1	419.0	425.0
67.5°	242.6	285.6	350.2	379.4	381.1
70°	201.3	251.2	314.0	327.8	316.6
72.5°	160.9	214.2	271.9	260.7	251.2
75°	125.6	179.8	221.1	198.7	193.6
77.5°	92.9	147.1	158.3	146.3	136.8
80°	66.2	116.1	106.7	91.2	86.9
82.5°	45.6	73.1	58.5	45.6	39.6
85°	25.8	32.7	20.6	12.9	10.3
87.5°	11.2	7.7	4.3	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)