

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: P307241

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CP250-W2A-U-2700K**

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: P307241
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: 14FCZ2-44-UNV-L82765-HRP-CP250-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 2700K 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: 2685.0 lumens
Efficiency: N/A
Efficacy: 70.1 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

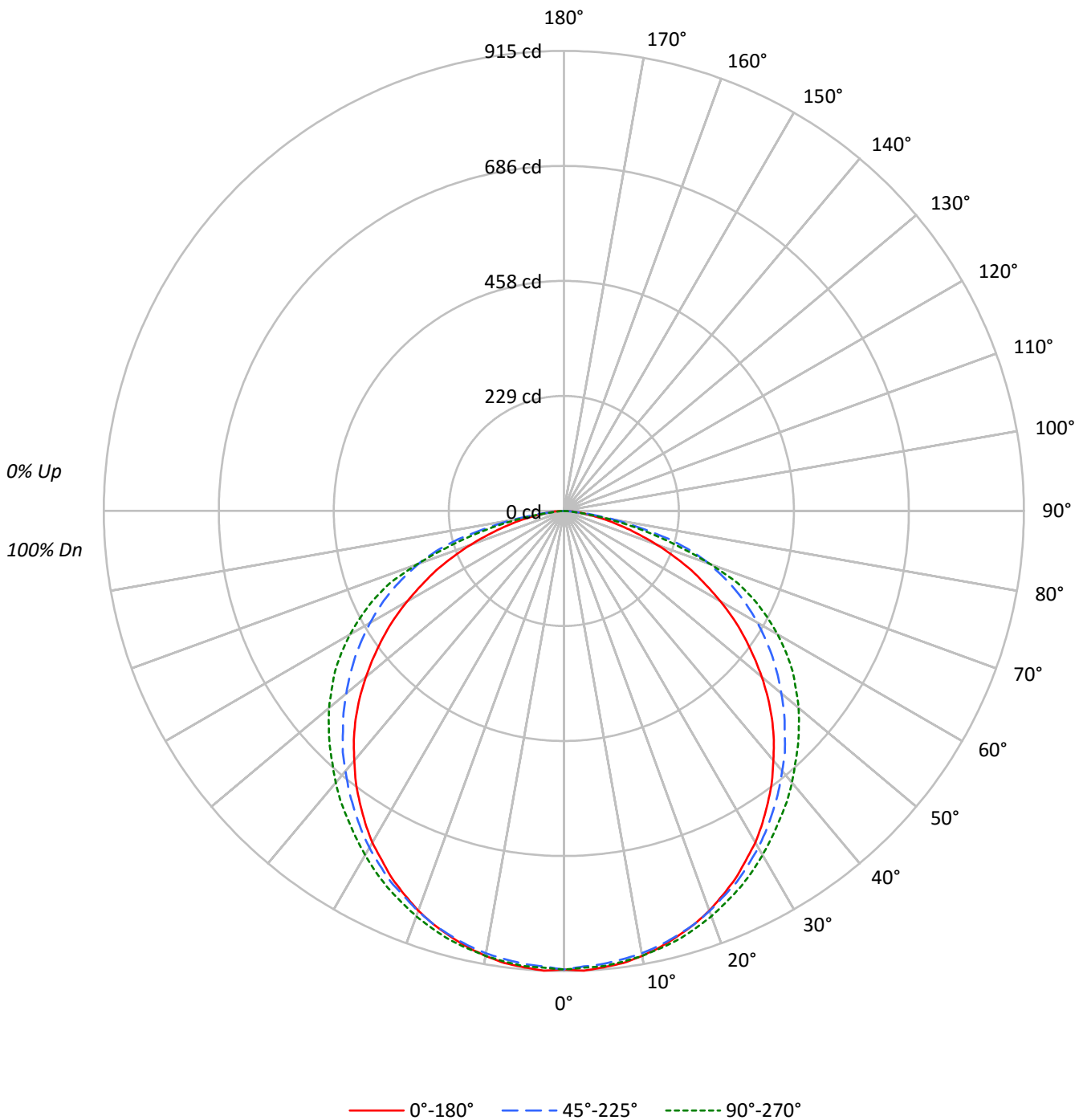
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2454	2454	2454
5°	2461	2442	2454
10°	2455	2441	2455
15°	2439	2434	2458
20°	2423	2425	2456
25°	2396	2417	2457
30°	2367	2403	2456
35°	2324	2385	2460
40°	2278	2373	2479
45°	2230	2365	2506
50°	2153	2364	2552
55°	2060	2377	2606
60°	1936	2394	2640
65°	1785	2419	2656
70°	1555	2425	2445
75°	1282	2256	1975
80°	1007	1623	1322
85°	781	627	312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.3	3.2
10°-20°	247.7	9.2
20°-30°	376.2	14.0
30°-40°	455.8	17.0
40°-50°	480.3	17.9
50°-60°	448.4	16.7
60°-70°	358.3	13.3
70°-80°	197.2	7.3
80°-90°	34.8	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°	710.2	26.5
0°-40°	1166.0	43.4
0°-60°	2094.7	78.0
0°-90°	2685.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2685.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	911	908	904	910	908	87
15°	876	876	874	882	882	247
25°	807	809	814	826	827	372
35°	708	714	726	745	749	443
45°	586	597	621	649	659	451
55°	439	461	507	542	556	392
65°	280	316	380	411	417	276
75°	123	176	217	195	190	133
85°	25	32	20	13	10	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	911.8	911.8	911.8	911.8	911.8
2.5°	915.2	912.7	906.8	911.8	909.3
5°	911.0	908.5	904.2	910.2	908.5
7.5°	906.8	903.4	899.2	905.9	904.2
10°	898.3	895.8	893.3	899.2	898.3
12.5°	888.2	887.4	884.8	891.6	890.7
15°	875.5	875.5	873.8	882.3	882.3
17.5°	862.0	861.2	862.0	871.3	870.5
20°	846.0	846.0	846.8	857.8	857.8
22.5°	826.6	827.4	829.9	843.5	842.6
25°	807.1	808.8	813.9	825.7	827.4
27.5°	783.5	787.7	793.6	808.0	809.7
30°	761.6	764.1	773.4	786.9	790.3
32.5°	735.4	740.4	750.6	765.8	770.0
35°	707.5	714.3	726.1	744.7	748.9
37.5°	679.7	685.6	701.6	721.0	728.6
40°	648.4	658.6	675.4	697.4	705.8
42.5°	618.0	628.2	651.0	673.7	681.3
45°	585.9	596.9	621.4	649.3	658.6
47.5°	550.5	563.1	594.4	623.9	634.1
50°	514.2	530.2	564.8	597.8	609.6
52.5°	476.2	496.4	536.1	570.7	581.7
55°	439.0	461.0	506.6	542.0	555.5
57.5°	401.0	424.7	476.2	516.7	524.3
60°	359.7	388.4	444.9	480.4	490.5
62.5°	319.1	352.1	412.9	446.6	455.1
65°	280.3	315.8	379.9	411.2	417.1
67.5°	238.1	280.3	343.6	372.3	374.0
70°	197.6	246.5	308.2	321.7	310.7
72.5°	157.9	210.2	266.8	255.8	246.5
75°	123.3	176.5	217.0	195.0	190.0
77.5°	91.2	144.4	155.4	143.5	134.2
80°	65.0	114.0	104.7	89.5	85.3
82.5°	44.7	71.8	57.4	44.7	38.8
85°	25.3	32.1	20.3	12.7	10.1
87.5°	11.0	7.6	4.2	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)