

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: P311920

Luminaire Tested: **14FCZ2-35-UNV-L83050-HRP-CA125-W2A-U-3000K**

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: P311920
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: 14FCZ2-35-UNV-L83050-HRP-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3000K 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: 2406.0 lumens
Efficiency: N/A
Efficacy: 81.8 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

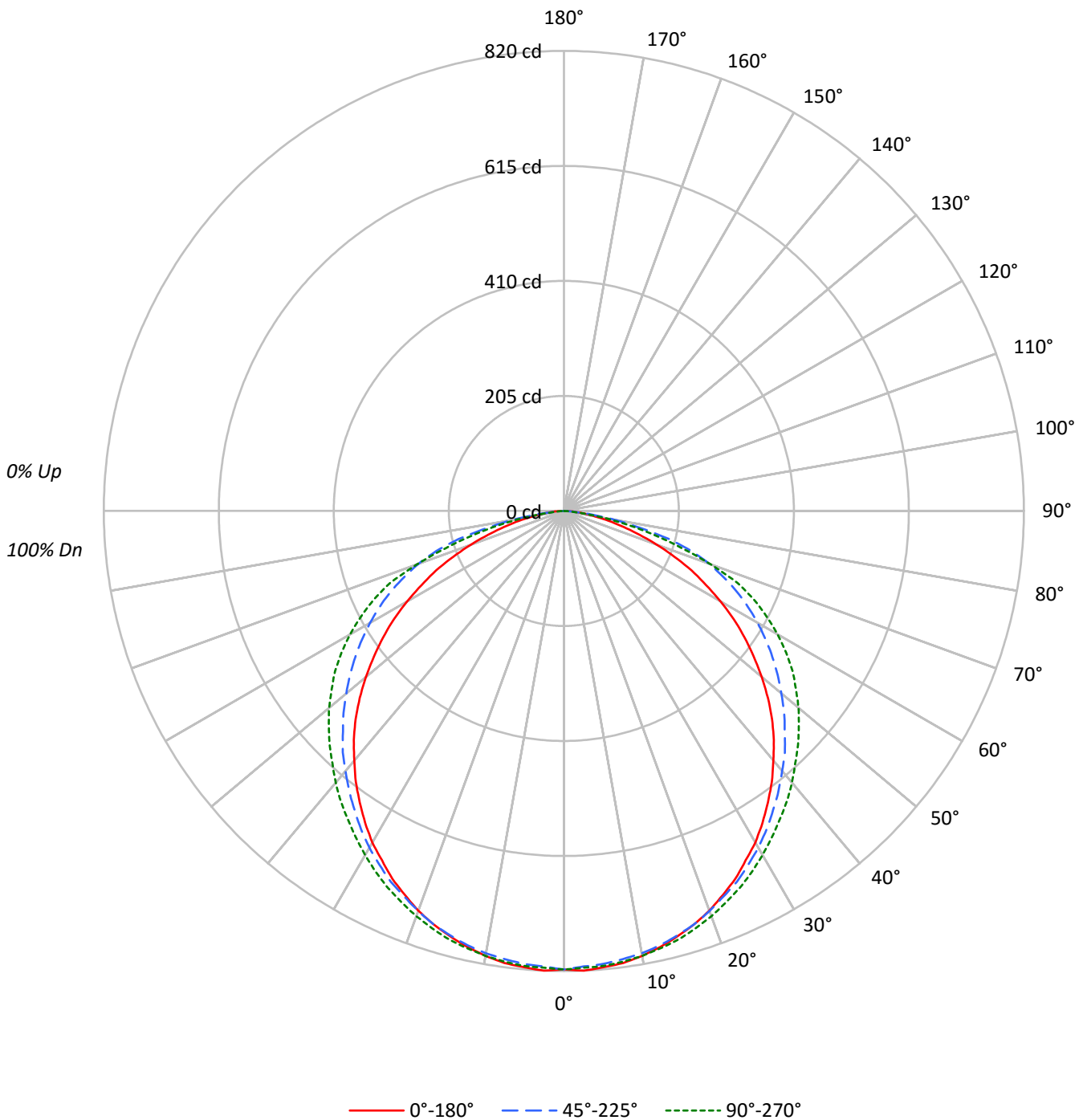
Input Watts (W): 29.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2199	2199	2199
5°	2205	2189	2199
10°	2200	2187	2200
15°	2186	2181	2203
20°	2171	2173	2201
25°	2148	2165	2201
30°	2120	2153	2200
35°	2083	2137	2205
40°	2041	2126	2222
45°	1998	2119	2246
50°	1929	2119	2287
55°	1846	2130	2335
60°	1735	2146	2366
65°	1599	2168	2379
70°	1393	2172	2190
75°	1149	2021	1770
80°	903	1454	1184
85°	701	562	281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	3.2
10°-20°	222.0	9.2
20°-30°	337.1	14.0
30°-40°	408.4	17.0
40°-50°	430.4	17.9
50°-60°	401.8	16.7
60°-70°	321.1	13.3
70°-80°	176.7	7.3
80°-90°	31.2	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°	636.4	26.5
0°-40°	1044.8	43.4
0°-60°	1877.0	78.0
0°-90°	2406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2406.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	817	817	817	817	817	
5°	816	814	810	816	814	78
15°	785	785	783	791	791	221
25°	723	725	729	740	741	333
35°	634	640	651	667	671	397
45°	525	535	557	582	590	404
55°	393	413	454	486	498	351
65°	251	283	340	368	374	247
75°	110	158	194	175	170	119
85°	23	29	18	11	9	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	817.1	817.1	817.1	817.1	817.1
2.5°	820.1	817.8	812.6	817.1	814.8
5°	816.3	814.1	810.3	815.6	814.1
7.5°	812.6	809.5	805.7	811.8	810.3
10°	805.0	802.7	800.4	805.7	805.0
12.5°	795.9	795.1	792.9	798.9	798.2
15°	784.6	784.6	783.0	790.6	790.6
17.5°	772.5	771.7	772.5	780.8	780.0
20°	758.1	758.1	758.8	768.7	768.7
22.5°	740.7	741.4	743.7	755.8	755.1
25°	723.3	724.8	729.3	739.9	741.4
27.5°	702.1	705.9	711.2	724.0	725.5
30°	682.4	684.7	693.0	705.1	708.1
32.5°	659.0	663.5	672.6	686.2	690.0
35°	634.0	640.1	650.6	667.3	671.1
37.5°	609.0	614.3	628.7	646.1	652.9
40°	581.0	590.1	605.3	624.9	632.5
42.5°	553.8	562.9	583.3	603.7	610.5
45°	525.1	534.9	556.8	581.8	590.1
47.5°	493.3	504.6	532.6	559.1	568.2
50°	460.7	475.1	506.1	535.6	546.2
52.5°	426.7	444.9	480.4	511.4	521.3
55°	393.4	413.1	453.9	485.7	497.8
57.5°	359.4	380.6	426.7	463.0	469.8
60°	322.3	348.0	398.7	430.5	439.6
62.5°	286.0	315.5	370.0	400.2	407.8
65°	251.2	283.0	340.5	368.4	373.7
67.5°	213.4	251.2	307.9	333.6	335.2
70°	177.0	220.9	276.1	288.3	278.4
72.5°	141.5	188.4	239.1	229.2	220.9
75°	110.5	158.1	194.4	174.8	170.2
77.5°	81.7	129.4	139.2	128.6	120.3
80°	58.3	102.1	93.8	80.2	76.4
82.5°	40.1	64.3	51.4	40.1	34.8
85°	22.7	28.7	18.2	11.3	9.1
87.5°	9.8	6.8	3.8	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)