

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: P311900

Luminaire Tested: **14FCZ2-29-UNV-L83050-HRP-CP125-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: P311900
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: 14FCZ2-29-UNV-L83050-HRP-CP125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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: 1962.0 lumens
Efficiency: N/A
Efficacy: 82.4 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

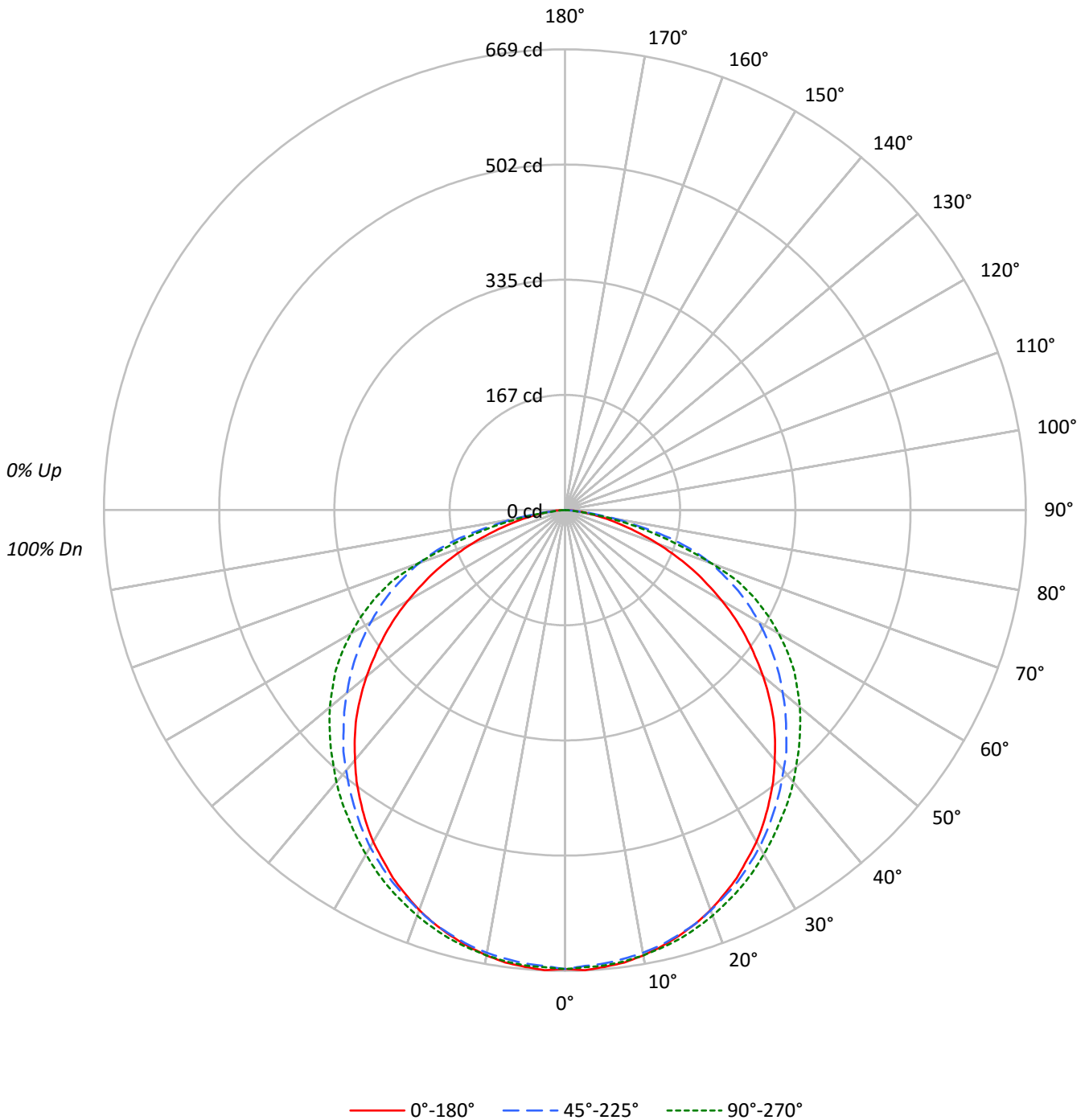
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1793	1793	1793
5°	1798	1785	1793
10°	1794	1783	1794
15°	1782	1779	1796
20°	1770	1772	1795
25°	1751	1766	1795
30°	1729	1756	1794
35°	1698	1743	1798
40°	1664	1734	1812
45°	1630	1728	1831
50°	1573	1728	1865
55°	1505	1737	1905
60°	1414	1750	1929
65°	1304	1768	1941
70°	1136	1772	1786
75°	937	1649	1443
80°	736	1185	965
85°	571	457	228



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	3.2
10°-20°	181.0	9.2
20°-30°	274.9	14.0
30°-40°	333.1	17.0
40°-50°	351.0	17.9
50°-60°	327.7	16.7
60°-70°	261.8	13.3
70°-80°	144.1	7.3
80°-90°	25.4	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°	519.0	26.5
0°-40°	852.0	43.4
0°-60°	1530.6	78.0
0°-90°	1962.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1962.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	666	666	666	666	666	
5°	666	664	661	665	664	63
15°	640	640	638	645	645	181
25°	590	591	595	603	605	272
35°	517	522	531	544	547	323
45°	428	436	454	474	481	329
55°	321	337	370	396	406	286
65°	205	231	278	300	305	202
75°	90	129	159	142	139	97
85°	18	23	15	9	7	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	666.3	666.3	666.3	666.3	666.3
2.5°	668.8	666.9	662.6	666.3	664.5
5°	665.7	663.8	660.8	665.1	663.8
7.5°	662.6	660.1	657.1	662.0	660.8
10°	656.4	654.6	652.7	657.1	656.4
12.5°	649.0	648.4	646.6	651.5	650.9
15°	639.8	639.8	638.5	644.7	644.7
17.5°	629.9	629.3	629.9	636.7	636.1
20°	618.2	618.2	618.8	626.8	626.8
22.5°	604.0	604.6	606.5	616.3	615.7
25°	589.8	591.0	594.7	603.4	604.6
27.5°	572.5	575.6	579.9	590.4	591.7
30°	556.5	558.3	565.1	575.0	577.5
32.5°	537.4	541.1	548.5	559.6	562.7
35°	517.0	521.9	530.6	544.1	547.2
37.5°	496.6	501.0	512.7	526.9	532.4
40°	473.8	481.2	493.6	509.6	515.8
42.5°	451.6	459.0	475.7	492.3	497.9
45°	428.2	436.2	454.1	474.4	481.2
47.5°	402.3	411.5	434.3	455.9	463.3
50°	375.7	387.4	412.7	436.8	445.4
52.5°	348.0	362.8	391.8	417.1	425.1
55°	320.8	336.9	370.2	396.1	406.0
57.5°	293.1	310.3	348.0	377.6	383.1
60°	262.8	283.8	325.1	351.0	358.4
62.5°	233.2	257.3	301.7	326.4	332.5
65°	204.8	230.7	277.6	300.5	304.8
67.5°	174.0	204.8	251.1	272.1	273.3
70°	144.4	180.1	225.2	235.1	227.0
72.5°	115.4	153.6	195.0	186.9	180.1
75°	90.1	128.9	158.6	142.5	138.8
77.5°	66.6	105.5	113.5	104.9	98.1
80°	47.5	83.3	76.5	65.4	62.3
82.5°	32.7	52.4	42.0	32.7	28.4
85°	18.5	23.4	14.8	9.3	7.4
87.5°	8.0	5.6	3.1	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)