

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: P311901

Luminaire Tested: **14FCZ2-29-UNV-L83050-HRP-CP125-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: P311901
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-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 2076.0 lumens
Efficiency: N/A
Efficacy: 87.2 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

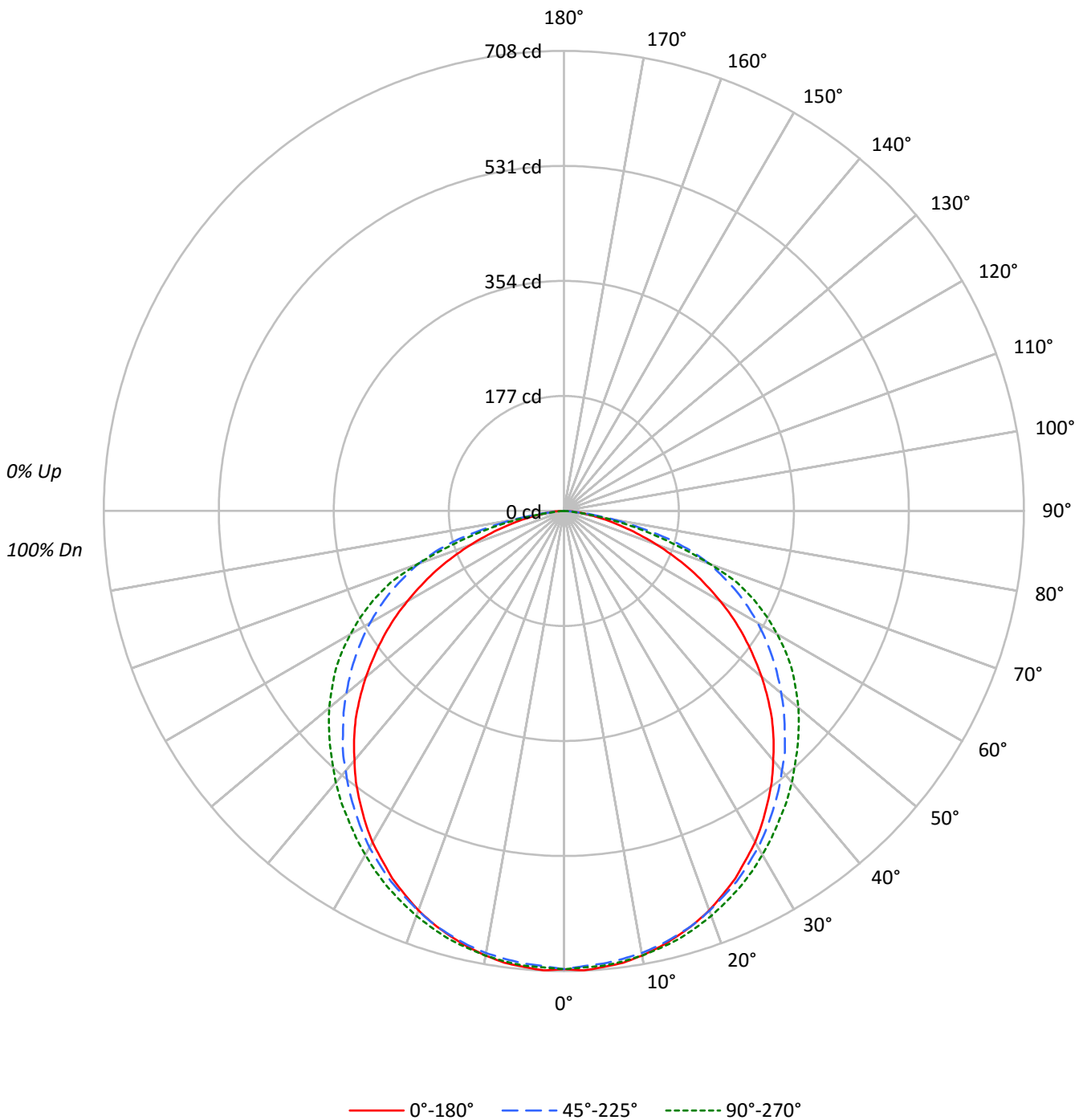
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1897	1897	1897
5°	1903	1888	1897
10°	1898	1887	1898
15°	1886	1882	1901
20°	1873	1875	1899
25°	1853	1868	1899
30°	1830	1858	1899
35°	1797	1844	1902
40°	1761	1834	1917
45°	1724	1829	1938
50°	1665	1828	1973
55°	1593	1838	2015
60°	1497	1851	2041
65°	1380	1871	2053
70°	1202	1875	1890
75°	991	1745	1527
80°	779	1254	1021
85°	605	485	241



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	3.2
10°-20°	191.5	9.2
20°-30°	290.8	14.0
30°-40°	352.4	17.0
40°-50°	371.4	17.9
50°-60°	346.7	16.7
60°-70°	277.1	13.3
70°-80°	152.4	7.3
80°-90°	26.9	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°	549.1	26.5
0°-40°	901.5	43.4
0°-60°	1619.6	78.0
0°-90°	2076.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2076.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	705	705	705	705	705	
5°	704	702	699	704	702	67
15°	677	677	676	682	682	191
25°	624	625	629	638	640	287
35°	547	552	561	576	579	342
45°	453	462	480	502	509	349
55°	340	356	392	419	430	303
65°	217	244	294	318	322	213
75°	95	136	168	151	147	103
85°	20	25	16	10	8	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	705.0	705.0	705.0	705.0	705.0
2.5°	707.6	705.7	701.1	705.0	703.1
5°	704.4	702.4	699.1	703.7	702.4
7.5°	701.1	698.5	695.2	700.5	699.1
10°	694.6	692.6	690.7	695.2	694.6
12.5°	686.7	686.1	684.1	689.4	688.7
15°	676.9	676.9	675.6	682.2	682.2
17.5°	666.5	665.9	666.5	673.7	673.0
20°	654.1	654.1	654.8	663.2	663.2
22.5°	639.1	639.7	641.7	652.1	651.5
25°	624.1	625.4	629.3	638.4	639.7
27.5°	605.8	609.1	613.6	624.7	626.0
30°	588.8	590.8	598.0	608.4	611.0
32.5°	568.6	572.5	580.3	592.1	595.4
35°	547.0	552.3	561.4	575.8	579.0
37.5°	525.5	530.1	542.5	557.5	563.4
40°	501.3	509.2	522.2	539.2	545.7
42.5°	477.8	485.7	503.3	520.9	526.8
45°	453.0	461.5	480.5	502.0	509.2
47.5°	425.6	435.4	459.6	482.4	490.3
50°	397.6	410.0	436.7	462.2	471.3
52.5°	368.2	383.8	414.5	441.3	449.8
55°	339.5	356.4	391.7	419.1	429.5
57.5°	310.1	328.4	368.2	399.5	405.4
60°	278.1	300.3	344.0	371.4	379.3
62.5°	246.8	272.2	319.2	345.3	351.9
65°	216.7	244.1	293.8	317.9	322.5
67.5°	184.1	216.7	265.7	287.9	289.2
70°	152.8	190.6	238.3	248.7	240.2
72.5°	122.1	162.5	206.3	197.8	190.6
75°	95.3	136.4	167.8	150.8	146.9
77.5°	70.5	111.6	120.1	111.0	103.8
80°	50.3	88.1	80.9	69.2	65.9
82.5°	34.6	55.5	44.4	34.6	30.0
85°	19.6	24.8	15.7	9.8	7.8
87.5°	8.5	5.9	3.3	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)