

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: P307541

Luminaire Tested: **14FCZ2-20-UNV-L82765-CP125-W2A-U-4000K**

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: P307541
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-UNV-L82765-CP125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4000K 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: 1959.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

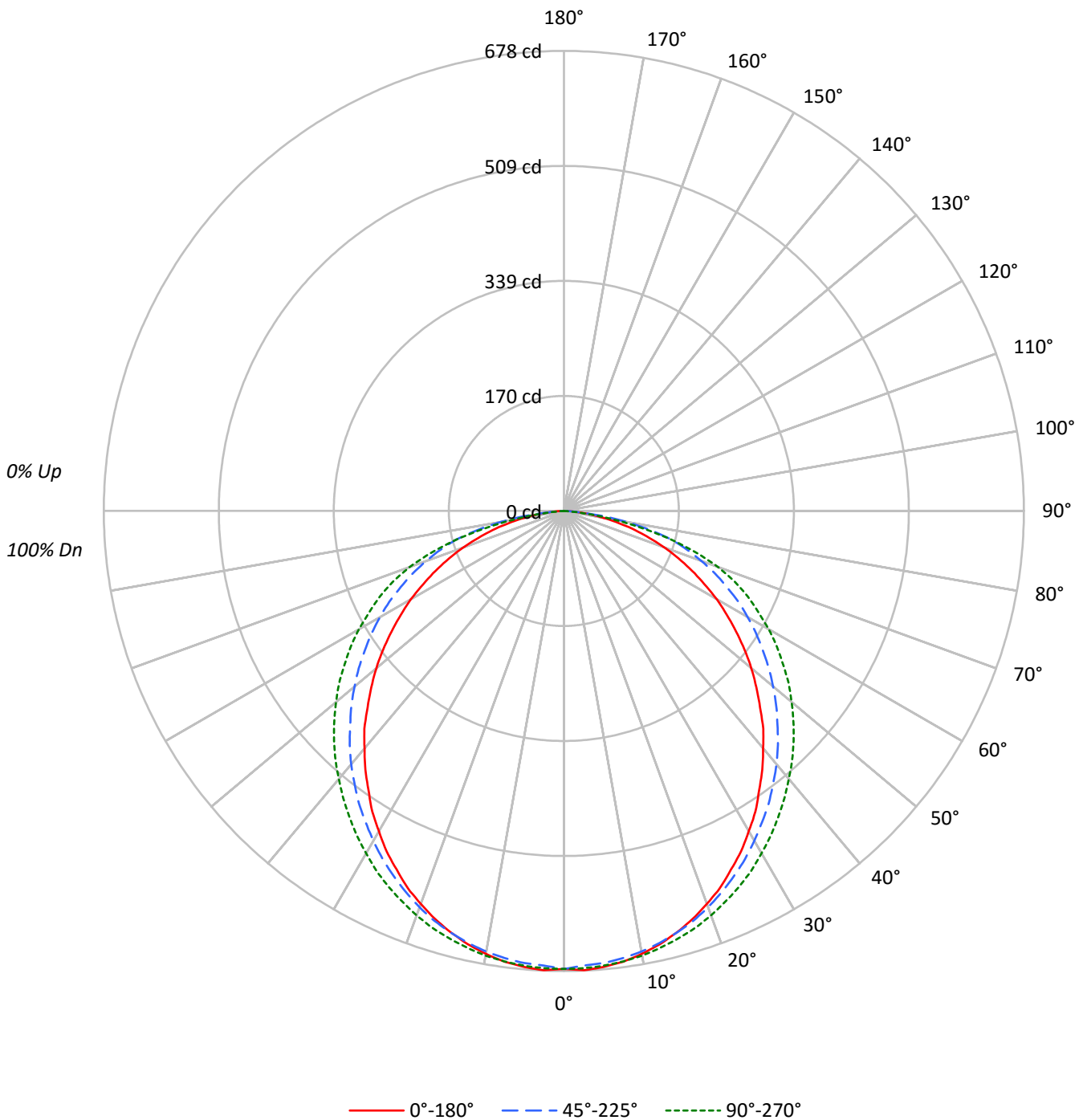
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	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	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1816	1816	1816
5°	1822	1807	1817
10°	1811	1801	1818
15°	1791	1792	1817
20°	1765	1780	1816
25°	1732	1762	1814
30°	1694	1744	1811
35°	1649	1729	1809
40°	1605	1713	1812
45°	1556	1694	1822
50°	1510	1686	1834
55°	1453	1681	1850
60°	1401	1683	1876
65°	1330	1688	1905
70°	1248	1701	1904
75°	1131	1717	1722
80°	927	1483	1226
85°	689	701	284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	3.3
10°-20°	182.4	9.3
20°-30°	274.8	14.0
30°-40°	329.8	16.8
40°-50°	343.7	17.5
50°-60°	318.2	16.2
60°-70°	257.1	13.1
70°-80°	156.8	8.0
80°-90°	32.4	1.7
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°	521.1	26.6
0°-40°	850.9	43.4
0°-60°	1512.8	77.2
0°-90°	1959.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1959.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	675	675	675	675	675	
5°	674	673	669	674	673	64
15°	643	643	643	652	652	181
25°	583	587	594	608	611	269
35°	502	510	526	546	551	314
45°	409	421	445	470	479	316
55°	310	326	358	386	394	277
65°	209	229	265	292	299	206
75°	109	133	165	168	166	114
85°	22	33	23	13	9	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	674.9	674.9	674.9	674.9	674.9
2.5°	677.5	675.3	670.5	675.3	674.4
5°	674.4	672.7	668.8	673.6	672.7
7.5°	670.1	668.3	664.8	670.5	669.6
10°	662.7	661.8	659.2	665.7	665.3
12.5°	653.9	653.5	652.2	659.6	659.2
15°	643.0	643.4	643.4	652.2	652.2
17.5°	630.8	631.6	633.4	643.0	644.3
20°	616.3	618.1	621.6	632.5	634.3
22.5°	601.5	602.8	608.0	621.2	622.9
25°	583.2	586.6	593.6	608.5	611.1
27.5°	565.7	568.7	578.3	593.6	598.0
30°	545.1	550.0	561.3	577.9	582.7
32.5°	525.5	530.7	543.8	563.1	567.4
35°	501.9	509.8	526.4	545.6	550.8
37.5°	480.5	487.9	506.7	527.7	533.8
40°	456.9	466.1	487.5	509.8	515.9
42.5°	435.1	443.8	467.0	489.7	498.0
45°	408.9	421.1	445.1	470.0	478.8
47.5°	384.8	397.1	424.6	451.2	459.1
50°	360.8	373.9	402.7	430.3	438.1
52.5°	335.9	349.9	380.9	408.4	417.6
55°	309.7	325.9	358.2	386.1	394.4
57.5°	284.8	301.4	335.9	364.3	372.6
60°	260.3	277.4	312.8	339.8	348.6
62.5°	233.3	253.4	290.0	316.7	323.2
65°	208.8	229.3	265.1	291.8	299.2
67.5°	183.0	205.3	241.1	265.6	272.6
70°	158.6	181.7	216.2	238.9	242.0
72.5°	132.4	155.9	190.9	205.3	205.3
75°	108.8	132.8	165.1	167.7	165.6
77.5°	83.0	109.6	130.6	125.4	120.1
80°	59.8	86.1	95.7	86.1	79.1
82.5°	40.2	62.5	57.7	45.9	40.6
85°	22.3	33.2	22.7	12.7	9.2
87.5°	8.3	7.4	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)