

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: P312018

Luminaire Tested: **14FCZ2-25-UNV-L83050-RDP-CA08-W2A-U-4500K**

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: P312018
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L83050-RDP-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET
Light Source: (168) 4500K 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: 1595.0 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

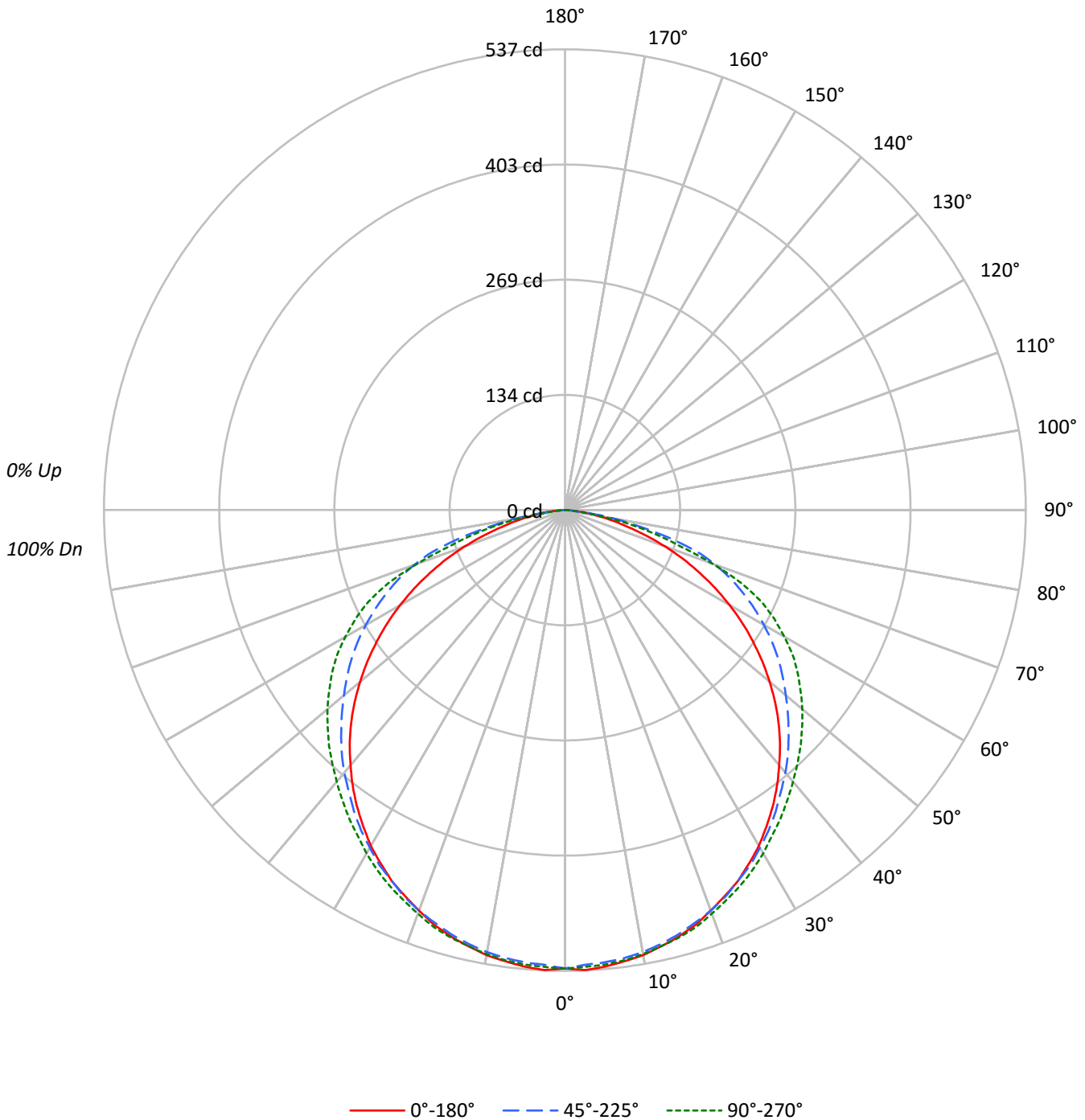
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1438	1438	1438
5°	1443	1430	1436
10°	1439	1429	1436
15°	1433	1426	1436
20°	1423	1423	1434
25°	1416	1416	1435
30°	1404	1412	1436
35°	1387	1407	1440
40°	1365	1404	1452
45°	1341	1403	1478
50°	1303	1407	1512
55°	1256	1425	1554
60°	1193	1441	1588
65°	1102	1459	1610
70°	980	1470	1440
75°	790	1320	1152
80°	617	927	753
85°	423	269	191



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.6	3.2
10°-20°	145.1	9.1
20°-30°	220.9	13.8
30°-40°	269.0	16.9
40°-50°	285.4	17.9
50°-60°	269.4	16.9
60°-70°	217.5	13.6
70°-80°	118.0	7.4
80°-90°	19.1	1.2
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°	416.5	26.1
0°-40°	685.6	43.0
0°-60°	1240.4	77.8
0°-90°	1595.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1595.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	534	534	534	534	534	
5°	534	533	529	533	532	51
15°	514	513	512	516	516	145
25°	477	476	477	482	483	220
35°	422	425	428	437	438	264
45°	352	357	369	382	388	271
55°	268	279	304	324	331	239
65°	173	194	229	248	253	172
75°	76	111	127	115	111	83
85°	14	15	9	8	6	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	534.2	534.2	534.2	534.2	534.2
2.5°	536.7	534.2	530.5	534.2	533.0
5°	534.2	533.0	529.2	533.0	531.7
7.5°	530.5	530.5	526.7	529.2	529.2
10°	526.7	525.5	523.0	526.7	525.5
12.5°	520.5	519.3	518.0	521.8	520.5
15°	514.3	513.0	511.8	515.5	515.5
17.5°	506.8	505.6	504.3	509.3	509.3
20°	496.8	496.8	496.8	501.8	500.6
22.5°	486.9	486.9	488.1	493.1	491.9
25°	476.9	475.7	476.9	481.9	483.2
27.5°	464.5	465.7	467.0	471.9	473.2
30°	452.0	453.3	454.5	460.7	462.0
32.5°	437.1	439.6	442.1	449.5	449.5
35°	422.1	424.6	428.4	437.1	438.3
37.5°	405.9	408.4	413.4	423.4	425.9
40°	388.5	392.2	399.7	409.7	413.4
42.5°	371.1	376.1	384.8	396.0	401.0
45°	352.4	357.4	368.6	382.3	388.5
47.5°	332.5	338.7	352.4	369.8	374.8
50°	311.3	320.0	336.2	354.9	361.1
52.5°	290.1	300.1	320.0	339.9	346.2
55°	267.7	278.9	303.8	323.8	331.2
57.5°	245.3	257.8	286.4	307.6	315.0
60°	221.7	236.6	267.7	288.9	295.1
62.5°	198.0	215.4	249.0	270.2	275.2
65°	173.1	194.3	229.1	247.8	252.8
67.5°	149.4	174.3	209.2	222.9	222.9
70°	124.5	151.9	186.8	190.5	183.0
72.5°	99.6	130.7	161.9	148.2	142.0
75°	76.0	110.8	127.0	114.6	110.8
77.5°	57.3	89.7	89.7	82.2	79.7
80°	39.8	68.5	59.8	52.3	48.6
82.5°	26.1	38.6	31.1	24.9	21.2
85°	13.7	14.9	8.7	7.5	6.2
87.5°	5.0	2.5	1.2	2.5	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)