

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: P307025

Luminaire Tested: **14FCZ2-25-UNV-L82765-HRP-CA08-W2A-U-2700K**

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: P307025
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: 14FCZ2-25-UNV-L82765-HRP-CA08-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 2700K 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: 1632.0 lumens
Efficiency: N/A
Efficacy: 83.3 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

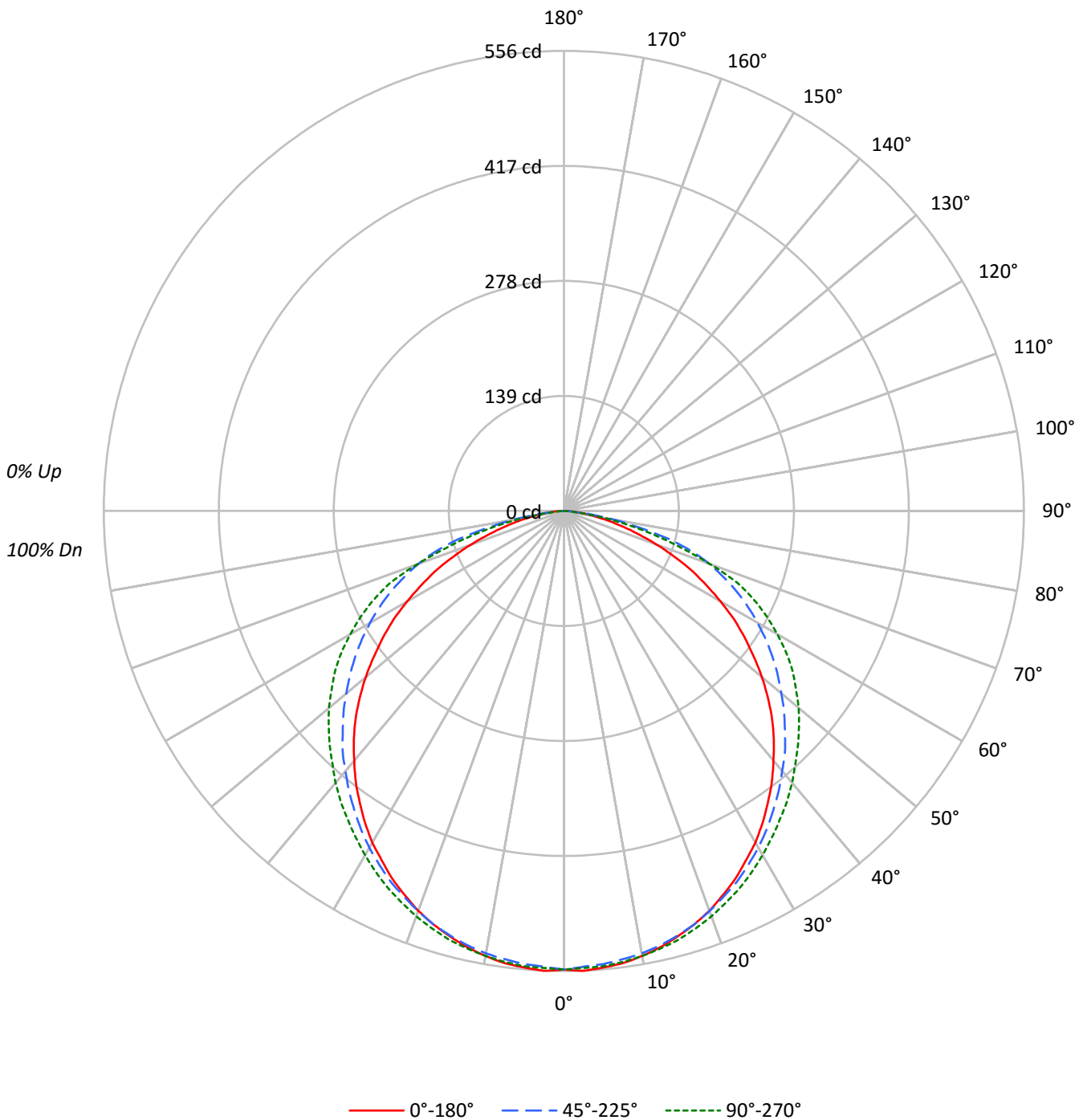
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1491	1491	1491
5°	1496	1485	1492
10°	1492	1483	1492
15°	1483	1480	1494
20°	1473	1474	1493
25°	1457	1469	1493
30°	1438	1461	1492
35°	1413	1450	1495
40°	1384	1442	1507
45°	1355	1437	1523
50°	1308	1437	1551
55°	1252	1445	1584
60°	1176	1455	1605
65°	1085	1470	1614
70°	945	1474	1486
75°	779	1371	1201
80°	612	986	803
85°	475	380	191



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.5	3.2
10°-20°	150.6	9.2
20°-30°	228.6	14.0
30°-40°	277.0	17.0
40°-50°	291.9	17.9
50°-60°	272.5	16.7
60°-70°	217.8	13.3
70°-80°	119.8	7.3
80°-90°	21.2	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°	431.7	26.5
0°-40°	708.7	43.4
0°-60°	1273.2	78.0
0°-90°	1632.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1632.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	554	554	554	554	554	
5°	554	552	550	553	552	53
15°	532	532	531	536	536	150
25°	491	492	495	502	503	226
35°	430	434	441	453	455	269
45°	356	363	378	395	400	274
55°	267	280	308	330	338	238
65°	170	192	231	250	254	168
75°	75	107	132	118	116	81
85°	15	20	12	8	6	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	554.2	554.2	554.2	554.2	554.2
2.5°	556.3	554.7	551.2	554.2	552.7
5°	553.7	552.2	549.6	553.2	552.2
7.5°	551.2	549.1	546.5	550.6	549.6
10°	546.0	544.5	542.9	546.5	546.0
12.5°	539.9	539.4	537.8	541.9	541.4
15°	532.2	532.2	531.1	536.3	536.3
17.5°	524.0	523.4	524.0	529.6	529.1
20°	514.2	514.2	514.7	521.4	521.4
22.5°	502.4	502.9	504.5	512.7	512.2
25°	490.6	491.6	494.7	501.9	502.9
27.5°	476.2	478.8	482.4	491.1	492.1
30°	462.9	464.4	470.1	478.3	480.3
32.5°	447.0	450.1	456.2	465.5	468.0
35°	430.0	434.2	441.3	452.6	455.2
37.5°	413.1	416.7	426.5	438.3	442.9
40°	394.1	400.3	410.5	423.9	429.0
42.5°	375.6	381.8	395.7	409.5	414.1
45°	356.1	362.8	377.7	394.6	400.3
47.5°	334.6	342.3	361.3	379.2	385.4
50°	312.5	322.3	343.3	363.3	370.5
52.5°	289.4	301.8	325.9	346.9	353.6
55°	266.9	280.2	307.9	329.5	337.7
57.5°	243.8	258.1	289.4	314.1	318.7
60°	218.6	236.1	270.4	292.0	298.2
62.5°	194.0	214.0	250.9	271.5	276.6
65°	170.4	191.9	230.9	249.9	253.5
67.5°	144.7	170.4	208.9	226.3	227.3
70°	120.1	149.8	187.3	195.5	188.9
72.5°	96.0	127.8	162.2	155.5	149.8
75°	74.9	107.3	131.9	118.5	115.5
77.5°	55.4	87.8	94.4	87.2	81.6
80°	39.5	69.3	63.6	54.4	51.8
82.5°	27.2	43.6	34.9	27.2	23.6
85°	15.4	19.5	12.3	7.7	6.2
87.5°	6.7	4.6	2.6	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)