

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: P311868

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-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: P311868
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-L83050-HRP-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 1885.0 lumens
Efficiency: N/A
Efficacy: 91.5 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

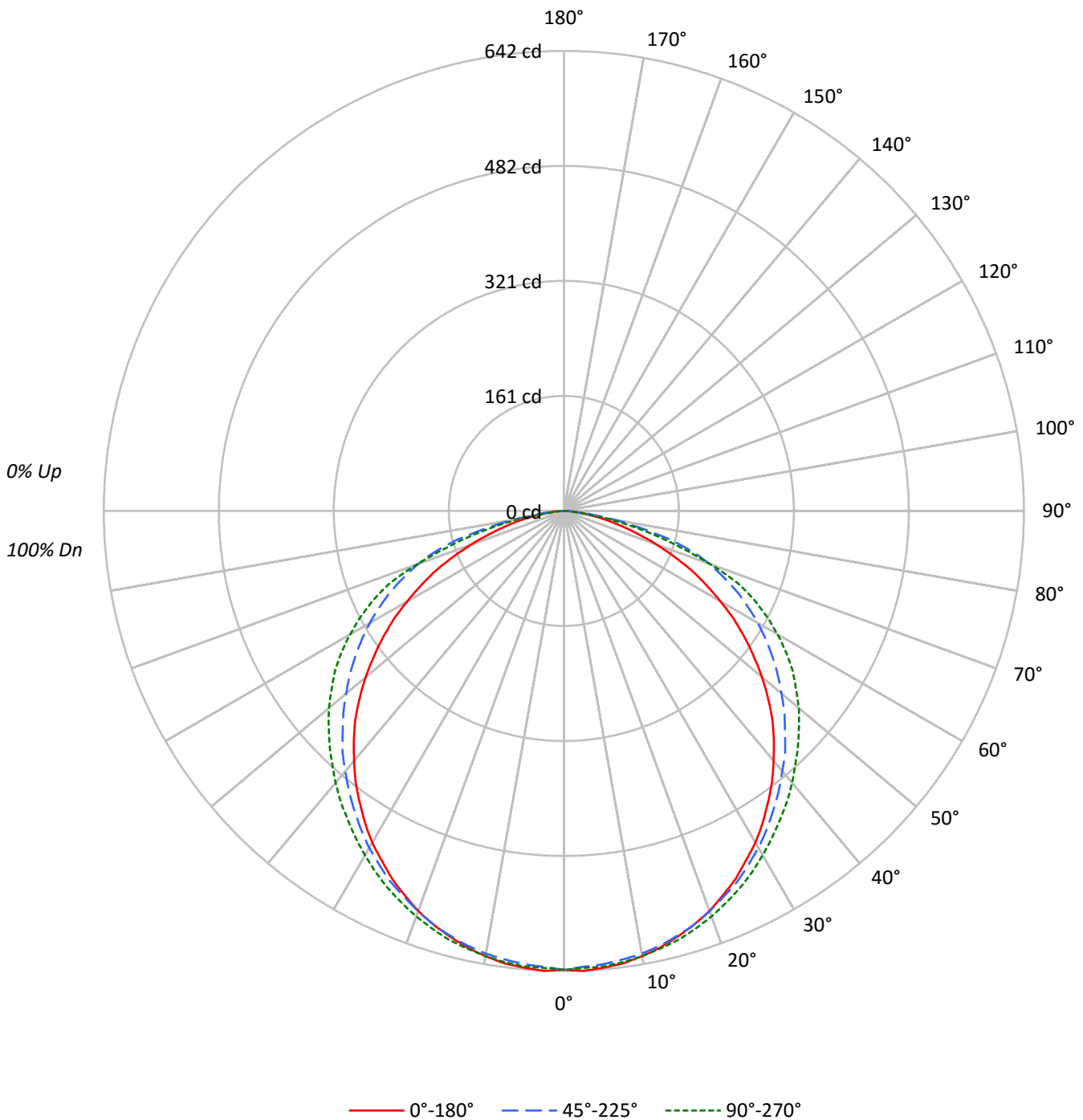
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1723	1723	1723
5°	1728	1715	1723
10°	1723	1714	1723
15°	1712	1709	1726
20°	1701	1702	1725
25°	1683	1697	1725
30°	1661	1687	1724
35°	1632	1675	1727
40°	1599	1666	1741
45°	1566	1660	1759
50°	1511	1660	1792
55°	1446	1668	1830
60°	1359	1681	1854
65°	1253	1698	1864
70°	1091	1702	1716
75°	899	1583	1387
80°	707	1139	928
85°	550	438	219



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	3.2
10°-20°	173.9	9.2
20°-30°	264.1	14.0
30°-40°	320.0	17.0
40°-50°	337.2	17.9
50°-60°	314.8	16.7
60°-70°	251.6	13.3
70°-80°	138.4	7.3
80°-90°	24.4	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°	498.6	26.5
0°-40°	818.6	43.4
0°-60°	1470.6	78.0
0°-90°	1885.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1885.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	640	640	640	640	640	
5°	640	638	635	639	638	61
15°	615	615	614	619	619	174
25°	567	568	571	580	581	261
35°	497	502	510	523	526	311
45°	411	419	436	456	462	317
55°	308	324	356	380	390	275
65°	197	222	267	289	293	194
75°	86	124	152	137	133	93
85°	18	22	14	9	7	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	640.2	640.2	640.2	640.2	640.2
2.5°	642.5	640.7	636.6	640.2	638.4
5°	639.6	637.8	634.8	639.0	637.8
7.5°	636.6	634.2	631.3	636.0	634.8
10°	630.7	628.9	627.1	631.3	630.7
12.5°	623.6	623.0	621.2	625.9	625.3
15°	614.7	614.7	613.5	619.4	619.4
17.5°	605.2	604.6	605.2	611.7	611.1
20°	593.9	593.9	594.5	602.2	602.2
22.5°	580.3	580.9	582.7	592.1	591.6
25°	566.7	567.8	571.4	579.7	580.9
27.5°	550.1	553.0	557.2	567.2	568.4
30°	534.6	536.4	542.9	552.4	554.8
32.5°	516.3	519.8	526.9	537.6	540.6
35°	496.7	501.5	509.8	522.8	525.8
37.5°	477.2	481.3	492.6	506.2	511.5
40°	455.2	462.3	474.2	489.6	495.5
42.5°	433.9	441.0	457.0	473.0	478.3
45°	411.4	419.1	436.3	455.8	462.3
47.5°	386.5	395.4	417.3	438.0	445.1
50°	361.0	372.2	396.5	419.7	428.0
52.5°	334.3	348.5	376.4	400.7	408.4
55°	308.2	323.6	355.6	380.5	390.0
57.5°	281.5	298.1	334.3	362.8	368.1
60°	252.5	272.7	312.4	337.3	344.4
62.5°	224.1	247.2	289.8	313.6	319.5
65°	196.8	221.7	266.7	288.7	292.8
67.5°	167.2	196.8	241.2	261.4	262.6
70°	138.7	173.1	216.3	225.8	218.1
72.5°	110.8	147.6	187.3	179.6	173.1
75°	86.5	123.9	152.3	136.9	133.4
77.5°	64.0	101.4	109.1	100.8	94.2
80°	45.6	80.0	73.5	62.8	59.9
82.5°	31.4	50.4	40.3	31.4	27.3
85°	17.8	22.5	14.2	8.9	7.1
87.5°	7.7	5.3	3.0	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)