

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: P312168

Luminaire Tested: **14FCZ2-25-UNV-L83050-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: P312168
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: 14FCZ2-25-UNV-L83050-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED 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: 2485.0 lumens
Efficiency: N/A
Efficacy: 120.6 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

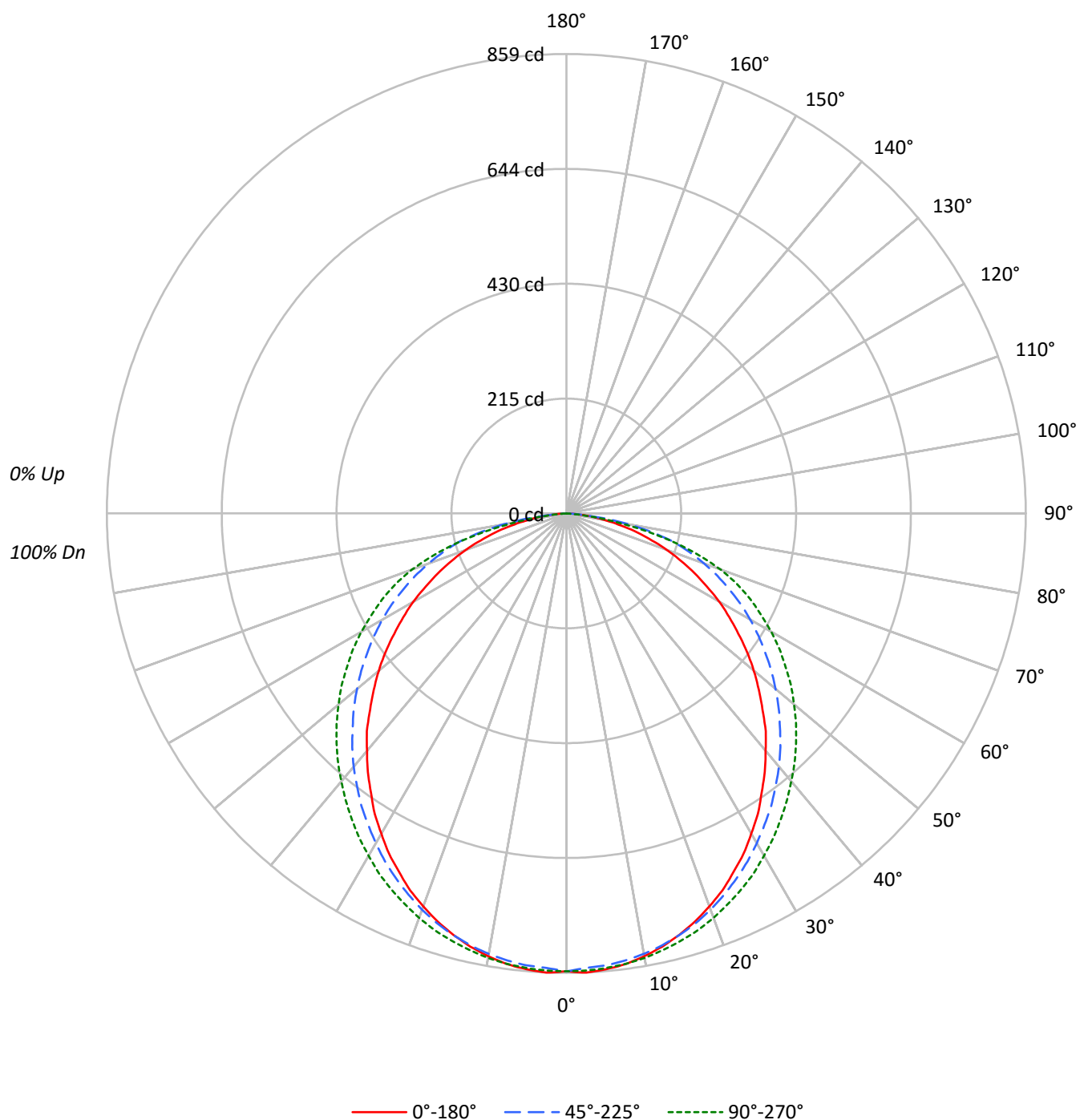
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2304	2304	2304
5°	2311	2291	2305
10°	2297	2285	2306
15°	2272	2274	2305
20°	2239	2258	2304
25°	2196	2236	2302
30°	2149	2212	2297
35°	2092	2193	2295
40°	2036	2172	2299
45°	1974	2149	2311
50°	1916	2139	2327
55°	1843	2132	2348
60°	1777	2135	2380
65°	1687	2141	2417
70°	1582	2158	2415
75°	1435	2178	2183
80°	1176	1880	1554
85°	874	889	358



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.0	3.3
10°-20°	231.4	9.3
20°-30°	348.6	14.0
30°-40°	418.3	16.8
40°-50°	436.0	17.5
50°-60°	403.6	16.2
60°-70°	326.1	13.1
70°-80°	198.8	8.0
80°-90°	41.1	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°	661.0	26.6
0°-40°	1079.3	43.4
0°-60°	1919.0	77.2
0°-90°	2485.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2485.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	856	853	848	854	853	81
15°	816	816	816	827	827	230
25°	740	744	753	772	775	341
35°	637	647	668	692	699	399
45°	519	534	565	596	607	401
55°	393	413	454	490	500	352
65°	265	291	336	370	380	262
75°	138	168	210	213	210	145
85°	28	42	29	16	12	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	856.1	856.1	856.1	856.1	856.1
2.5°	859.4	856.6	850.5	856.6	855.5
5°	855.5	853.3	848.3	854.4	853.3
7.5°	850.0	847.8	843.3	850.5	849.4
10°	840.6	839.5	836.1	844.5	843.9
12.5°	829.5	828.9	827.3	836.7	836.1
15°	815.6	816.2	816.2	827.3	827.3
17.5°	800.1	801.2	803.5	815.6	817.3
20°	781.8	784.1	788.5	802.3	804.6
22.5°	763.0	764.7	771.3	787.9	790.2
25°	739.7	744.2	753.0	771.9	775.2
27.5°	717.6	721.4	733.6	753.0	758.6
30°	691.5	697.6	712.0	733.1	739.2
32.5°	666.6	673.2	689.9	714.2	719.8
35°	636.7	646.6	667.7	692.1	698.7
37.5°	609.5	618.9	642.8	669.4	677.1
40°	579.6	591.2	618.4	646.6	654.4
42.5°	551.9	563.0	592.3	621.2	631.7
45°	518.6	534.2	564.6	596.2	607.3
47.5°	488.2	503.7	538.6	572.4	582.4
50°	457.7	474.3	510.9	545.8	555.8
52.5°	426.1	443.8	483.2	518.1	529.7
55°	392.9	413.4	454.4	489.8	500.4
57.5°	361.3	382.3	426.1	462.1	472.7
60°	330.2	351.9	396.7	431.1	442.2
62.5°	295.9	321.4	367.9	401.7	410.0
65°	264.9	290.9	336.3	370.1	379.6
67.5°	232.2	260.4	305.9	336.9	345.8
70°	201.1	230.5	274.3	303.1	307.0
72.5°	167.9	197.8	242.1	260.4	260.4
75°	138.0	168.4	209.5	212.8	210.0
77.5°	105.3	139.1	165.7	159.0	152.4
80°	75.9	109.2	121.3	109.2	100.3
82.5°	51.0	79.2	73.1	58.2	51.5
85°	28.3	42.1	28.8	16.1	11.6
87.5°	10.5	9.4	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)