

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: P306980

Luminaire Tested: **14FCZ2-20-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: P306980
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: 14FCZ2-20-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: 1398.0 lumens
Efficiency: N/A
Efficacy: 84.7 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

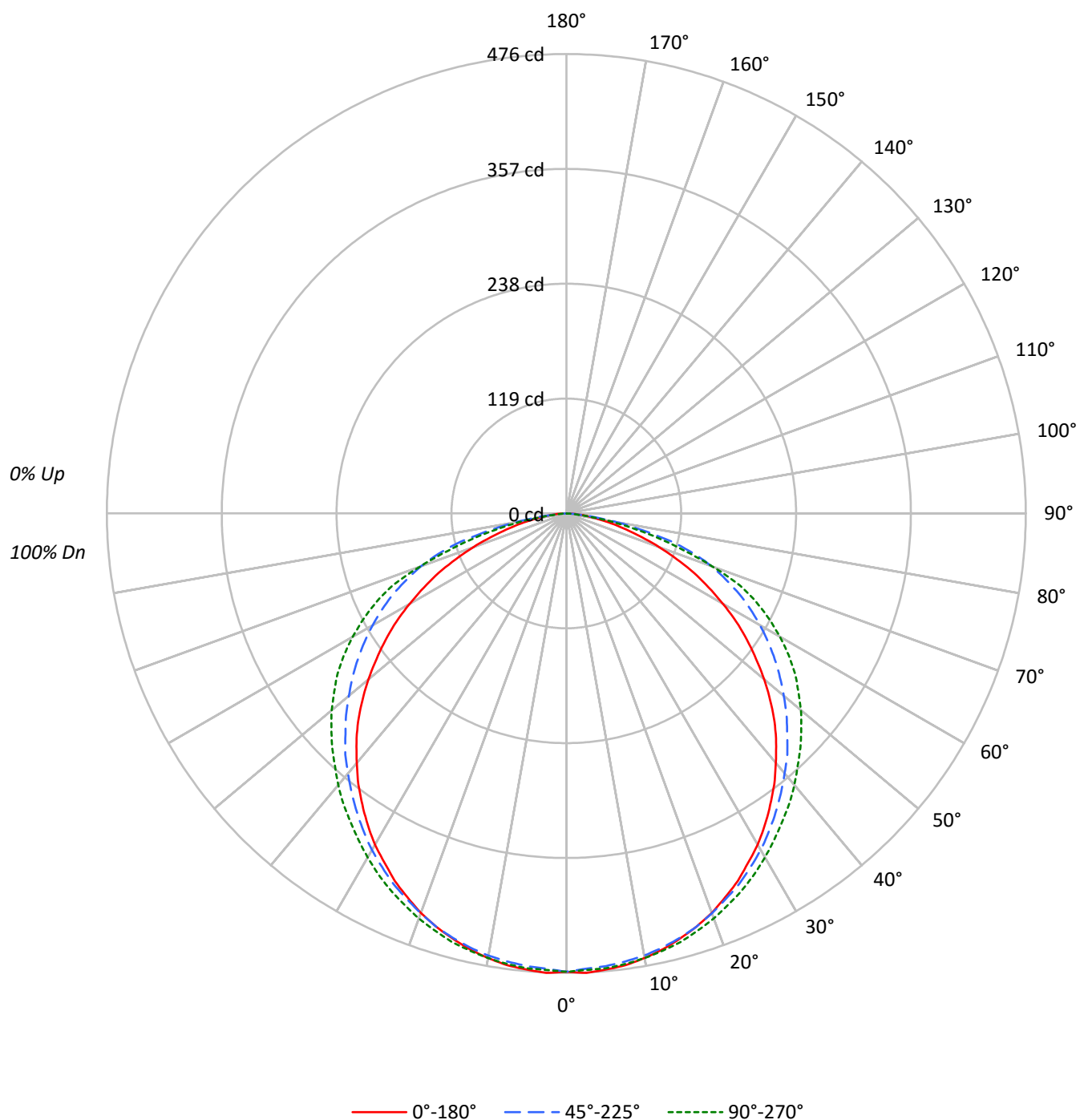
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	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	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1278	1278	1278
5°	1281	1272	1278
10°	1278	1271	1278
15°	1270	1268	1280
20°	1261	1263	1279
25°	1248	1258	1279
30°	1232	1251	1279
35°	1210	1242	1281
40°	1186	1235	1291
45°	1161	1231	1305
50°	1121	1231	1329
55°	1072	1238	1357
60°	1008	1247	1375
65°	929	1259	1383
70°	810	1263	1273
75°	667	1175	1028
80°	524	845	688
85°	408	327	164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.9	3.2
10°-20°	129.0	9.2
20°-30°	195.9	14.0
30°-40°	237.3	17.0
40°-50°	250.1	17.9
50°-60°	233.5	16.7
60°-70°	186.6	13.3
70°-80°	102.7	7.3
80°-90°	18.1	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°	369.8	26.5
0°-40°	607.1	43.4
0°-60°	1090.6	78.0
0°-90°	1398.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1398.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	475	475	475	475	475	
5°	474	473	471	474	473	45
15°	456	456	455	459	459	129
25°	420	421	424	430	431	193
35°	368	372	378	388	390	231
45°	305	311	324	338	343	235
55°	229	240	264	282	289	204
65°	146	164	198	214	217	144
75°	64	92	113	102	99	69
85°	13	17	11	7	5	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	474.8	474.8	474.8	474.8	474.8
2.5°	476.5	475.2	472.1	474.8	473.4
5°	474.3	473.0	470.8	473.9	473.0
7.5°	472.1	470.4	468.2	471.7	470.8
10°	467.7	466.4	465.1	468.2	467.7
12.5°	462.5	462.0	460.7	464.2	463.8
15°	455.9	455.9	455.0	459.4	459.4
17.5°	448.8	448.4	448.8	453.7	453.2
20°	440.5	440.5	440.9	446.6	446.6
22.5°	430.4	430.8	432.1	439.2	438.7
25°	420.3	421.1	423.8	429.9	430.8
27.5°	407.9	410.1	413.2	420.7	421.6
30°	396.5	397.8	402.7	409.7	411.5
32.5°	382.9	385.5	390.8	398.7	400.9
35°	368.4	371.9	378.1	387.7	389.9
37.5°	353.9	357.0	365.3	375.4	379.4
40°	337.6	342.9	351.7	363.1	367.5
42.5°	321.8	327.1	338.9	350.8	354.8
45°	305.1	310.8	323.5	338.1	342.9
47.5°	286.6	293.2	309.5	324.9	330.1
50°	267.7	276.1	294.1	311.2	317.4
52.5°	247.9	258.5	279.1	297.2	302.9
55°	228.6	240.0	263.8	282.2	289.3
57.5°	208.8	221.1	247.9	269.0	273.0
60°	187.3	202.2	231.7	250.1	255.4
62.5°	166.2	183.3	215.0	232.5	236.9
65°	145.9	164.4	197.8	214.1	217.2
67.5°	124.0	145.9	178.9	193.9	194.7
70°	102.9	128.4	160.5	167.5	161.8
72.5°	82.2	109.5	138.9	133.2	128.4
75°	64.2	91.9	113.0	101.5	98.9
77.5°	47.5	75.2	80.9	74.7	69.9
80°	33.8	59.3	54.5	46.6	44.4
82.5°	23.3	37.4	29.9	23.3	20.2
85°	13.2	16.7	10.6	6.6	5.3
87.5°	5.7	4.0	2.2	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)