

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: P307253

Luminaire Tested: **14FCZ2-20-UNV-L82765-RDP-CA08-W2A-U-4000K**

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: P307253
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: 14FCZ2-20-UNV-L82765-RDP-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET
Light Source: (168) 4000K 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: 1287.0 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

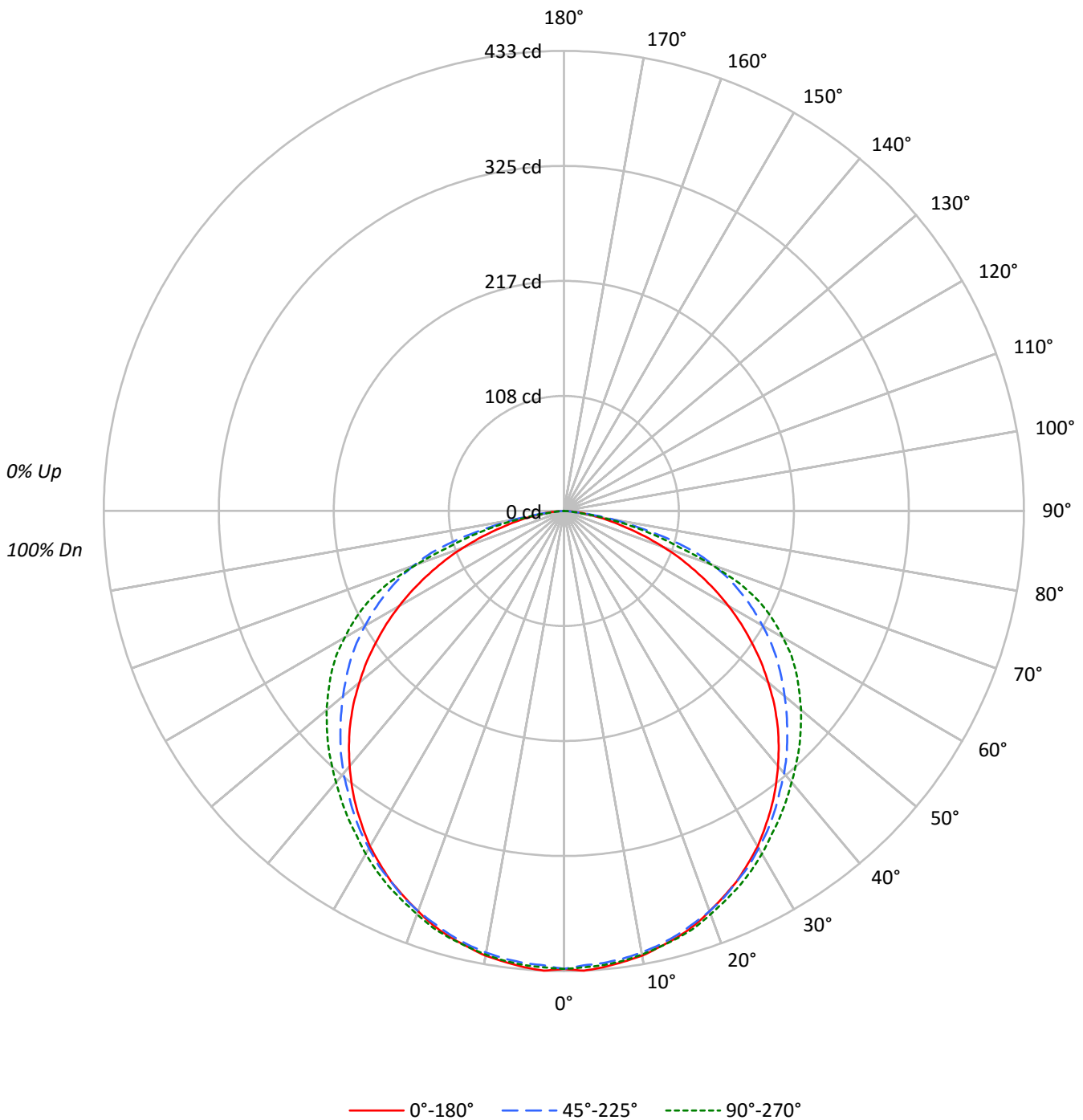
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1160	1160	1160
5°	1164	1153	1159
10°	1161	1153	1159
15°	1156	1151	1159
20°	1148	1148	1157
25°	1143	1143	1158
30°	1133	1139	1158
35°	1119	1135	1162
40°	1101	1133	1172
45°	1082	1132	1193
50°	1052	1136	1220
55°	1013	1150	1254
60°	963	1163	1281
65°	890	1177	1299
70°	791	1186	1162
75°	637	1066	930
80°	499	747	607
85°	343	216	154



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.8	3.2
10°-20°	117.1	9.1
20°-30°	178.2	13.8
30°-40°	217.1	16.9
40°-50°	230.3	17.9
50°-60°	217.4	16.9
60°-70°	175.5	13.6
70°-80°	95.2	7.4
80°-90°	15.4	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°	336.1	26.1
0°-40°	553.2	43.0
0°-60°	1000.9	77.8
0°-90°	1287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1287.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	431	431	431	431	431	
5°	431	430	427	430	429	41
15°	415	414	413	416	416	117
25°	385	384	385	389	390	177
35°	341	343	346	353	354	213
45°	284	288	297	308	314	219
55°	216	225	245	261	267	193
65°	140	157	185	200	204	138
75°	61	89	102	92	89	67
85°	11	12	7	6	5	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	431.0	431.0	431.0	431.0	431.0
2.5°	433.1	431.0	428.0	431.0	430.0
5°	431.0	430.0	427.0	430.0	429.0
7.5°	428.0	428.0	425.0	427.0	427.0
10°	425.0	424.0	422.0	425.0	424.0
12.5°	420.0	419.0	418.0	421.0	420.0
15°	415.0	414.0	413.0	416.0	416.0
17.5°	408.9	407.9	406.9	411.0	411.0
20°	400.9	400.9	400.9	404.9	403.9
22.5°	392.9	392.9	393.9	397.9	396.9
25°	384.8	383.8	384.8	388.8	389.9
27.5°	374.8	375.8	376.8	380.8	381.8
30°	364.7	365.7	366.7	371.8	372.8
32.5°	352.7	354.7	356.7	362.7	362.7
35°	340.6	342.6	345.6	352.7	353.7
37.5°	327.6	329.6	333.6	341.6	343.6
40°	313.5	316.5	322.5	330.6	333.6
42.5°	299.4	303.4	310.5	319.5	323.5
45°	284.4	288.4	297.4	308.5	313.5
47.5°	268.3	273.3	284.4	298.4	302.4
50°	251.2	258.2	271.3	286.4	291.4
52.5°	234.1	242.2	258.2	274.3	279.3
55°	216.0	225.1	245.2	261.2	267.3
57.5°	197.9	208.0	231.1	248.2	254.2
60°	178.9	190.9	216.0	233.1	238.1
62.5°	159.8	173.8	201.0	218.0	222.1
65°	139.7	156.7	184.9	200.0	204.0
67.5°	120.6	140.7	168.8	179.9	179.9
70°	100.5	122.6	150.7	153.7	147.7
72.5°	80.4	105.5	130.6	119.6	114.5
75°	61.3	89.4	102.5	92.4	89.4
77.5°	46.2	72.3	72.3	66.3	64.3
80°	32.2	55.3	48.2	42.2	39.2
82.5°	21.1	31.1	25.1	20.1	17.1
85°	11.1	12.1	7.0	6.0	5.0
87.5°	4.0	2.0	1.0	2.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)