

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: P307254

Luminaire Tested: **14FCZ2-20-UNV-L82765-RDP-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: P307254
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-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 1309.0 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

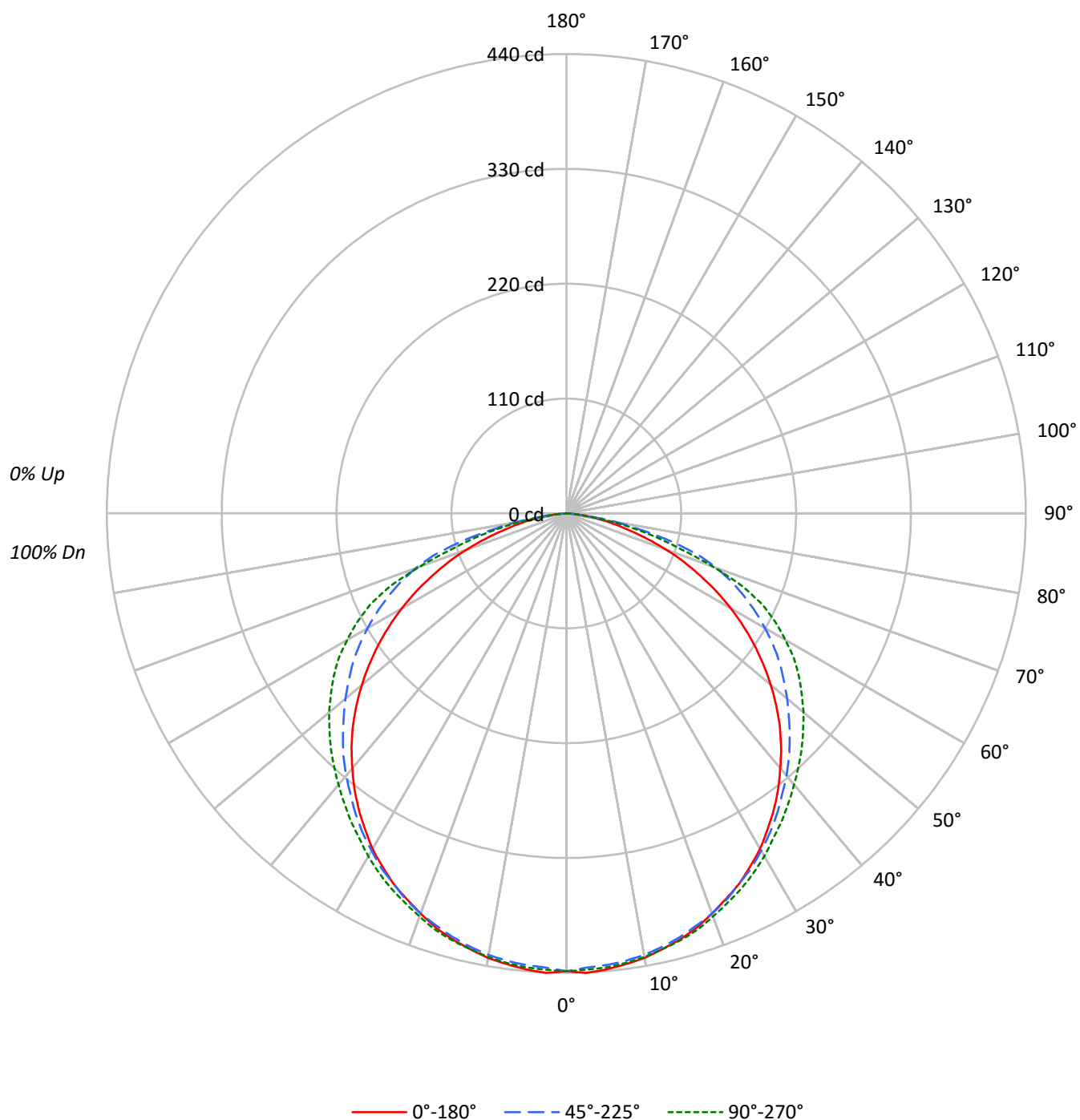
Input Watts (W): 16.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75		81	77	73		69
3	90	79	71	64	87	77	70	63	74	68	62		71	66	61		58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35		47	40	35		32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		26
10	52	39	31	25	51	38	31	25	37	30	25		36	30	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1180	1180	1180
5°	1184	1173	1179
10°	1181	1173	1179
15°	1176	1170	1179
20°	1168	1168	1176
25°	1162	1162	1177
30°	1153	1159	1178
35°	1138	1155	1182
40°	1120	1152	1192
45°	1101	1151	1213
50°	1070	1155	1241
55°	1031	1170	1275
60°	979	1182	1304
65°	905	1197	1321
70°	804	1206	1182
75°	648	1083	946
80°	507	761	618
85°	346	222	157



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.5	3.2
10°-20°	119.1	9.1
20°-30°	181.3	13.8
30°-40°	220.8	16.9
40°-50°	234.3	17.9
50°-60°	221.1	16.9
60°-70°	178.5	13.6
70°-80°	96.8	7.4
80°-90°	15.7	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°	341.8	26.1
0°-40°	562.6	43.0
0°-60°	1018.0	77.8
0°-90°	1309.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1309.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	438	438	438	438	438	
5°	438	437	434	437	436	42
15°	422	421	420	423	423	119
25°	391	390	391	396	396	180
35°	346	348	352	359	360	217
45°	289	293	302	314	319	223
55°	220	229	249	266	272	196
65°	142	159	188	203	208	141
75°	62	91	104	94	91	68
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°	438.4	438.4	438.4	438.4	438.4
2.5°	440.5	438.4	435.4	438.4	437.4
5°	438.4	437.4	434.3	437.4	436.4
7.5°	435.4	435.4	432.3	434.3	434.3
10°	432.3	431.3	429.2	432.3	431.3
12.5°	427.2	426.2	425.1	428.2	427.2
15°	422.1	421.0	420.0	423.1	423.1
17.5°	415.9	414.9	413.9	418.0	418.0
20°	407.8	407.8	407.8	411.8	410.8
22.5°	399.6	399.6	400.6	404.7	403.7
25°	391.4	390.4	391.4	395.5	396.5
27.5°	381.2	382.2	383.2	387.3	388.3
30°	371.0	372.0	373.0	378.1	379.1
32.5°	358.7	360.7	362.8	368.9	368.9
35°	346.4	348.5	351.6	358.7	359.7
37.5°	333.2	335.2	339.3	347.5	349.5
40°	318.8	321.9	328.0	336.2	339.3
42.5°	304.5	308.6	315.8	325.0	329.1
45°	289.2	293.3	302.5	313.7	318.8
47.5°	272.9	278.0	289.2	303.5	307.6
50°	255.5	262.6	275.9	291.3	296.4
52.5°	238.1	246.3	262.6	279.0	284.1
55°	219.7	228.9	249.4	265.7	271.8
57.5°	201.3	211.5	235.0	252.4	258.6
60°	181.9	194.2	219.7	237.1	242.2
62.5°	162.5	176.8	204.4	221.8	225.9
65°	142.1	159.4	188.0	203.4	207.5
67.5°	122.6	143.1	171.7	182.9	182.9
70°	102.2	124.7	153.3	156.4	150.2
72.5°	81.8	107.3	132.9	121.6	116.5
75°	62.3	91.0	104.2	94.0	91.0
77.5°	47.0	73.6	73.6	67.4	65.4
80°	32.7	56.2	49.1	42.9	39.9
82.5°	21.5	31.7	25.5	20.4	17.4
85°	11.2	12.3	7.2	6.1	5.1
87.5°	4.1	2.0	1.0	2.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)