

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: P308376

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-3000K**

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: P308376
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (168) 3000K 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: 1387.0 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

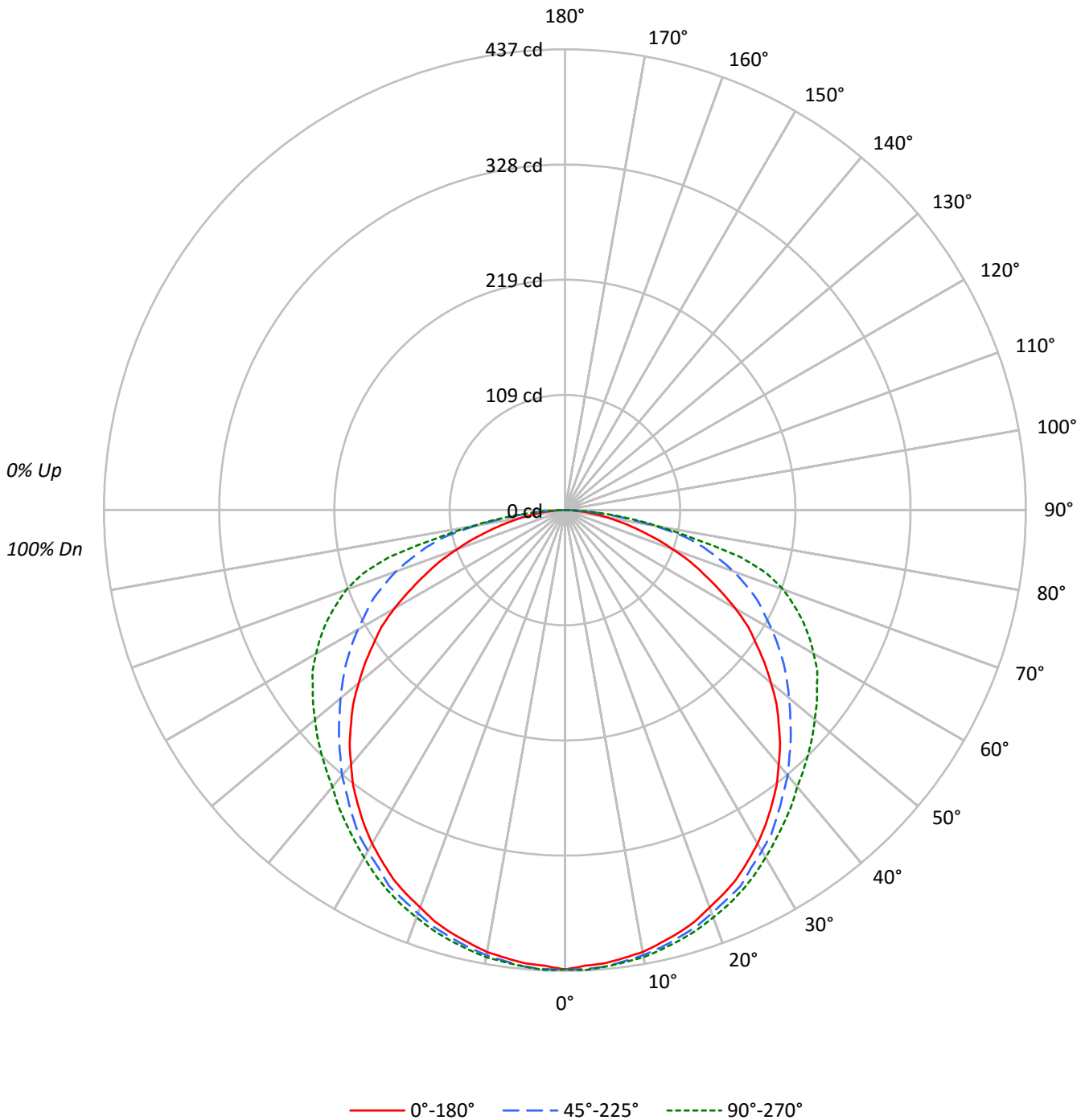
Input Watts (W): 18.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1172	1172	1172
5°	1166	1174	1174
10°	1163	1171	1177
15°	1157	1168	1177
20°	1148	1166	1178
25°	1145	1169	1181
30°	1135	1160	1183
35°	1123	1156	1190
40°	1108	1154	1204
45°	1091	1153	1243
50°	1068	1162	1294
55°	1039	1187	1369
60°	1005	1219	1466
65°	935	1280	1585
70°	859	1341	1734
75°	753	1411	1792
80°	648	1344	1407
85°	568	976	1071



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.2	3.0
10°-20°	118.3	8.5
20°-30°	180.5	13.0
30°-40°	220.4	15.9
40°-50°	235.7	17.0
50°-60°	227.5	16.4
60°-70°	195.8	14.1
70°-80°	132.5	9.6
80°-90°	35.0	2.5
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°	340.1	24.5
0°-40°	560.5	40.4
0°-60°	1023.7	73.8
0°-90°	1387.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1387.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	436	436	436	436	436	
5°	432	433	435	435	435	41
15°	415	416	419	421	422	117
25°	386	388	394	396	398	178
35°	342	345	352	359	362	214
45°	287	292	303	318	326	221
55°	221	229	253	279	292	198
65°	147	161	201	233	249	146
75°	72	96	136	163	172	78
85°	18	26	32	33	35	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	435.7	435.7	435.7	435.7	435.7
2.5°	432.6	433.6	435.7	435.7	436.7
5°	431.6	432.6	434.7	434.7	434.7
7.5°	428.5	429.6	431.6	432.6	432.6
10°	425.5	426.5	428.5	429.6	430.6
12.5°	420.4	421.4	424.5	426.5	426.5
15°	415.3	416.3	419.4	421.4	422.4
17.5°	409.2	411.2	414.3	416.3	417.3
20°	401.0	403.0	407.1	410.2	411.2
22.5°	393.8	395.9	400.0	403.0	405.1
25°	385.7	387.7	393.8	395.9	397.9
27.5°	375.5	377.5	382.6	386.7	389.8
30°	365.3	367.3	373.4	378.5	380.6
32.5°	354.1	357.1	364.3	368.3	371.4
35°	341.8	344.9	352.0	359.2	362.2
37.5°	329.6	332.6	339.8	349.0	353.0
40°	315.3	319.4	328.5	340.8	342.8
42.5°	302.0	307.1	315.3	329.6	334.7
45°	286.7	291.8	303.0	318.3	326.5
47.5°	272.4	277.5	289.8	308.1	318.3
50°	255.1	262.2	277.5	299.0	309.2
52.5°	238.8	244.9	265.3	288.8	301.0
55°	221.4	228.6	253.0	278.6	291.8
57.5°	206.1	212.2	239.8	268.3	283.7
60°	186.7	194.9	226.5	257.1	272.4
62.5°	166.3	178.6	213.2	244.9	261.2
65°	146.9	161.2	201.0	232.6	249.0
67.5°	129.6	144.9	185.7	219.4	234.7
70°	109.2	128.6	170.4	203.0	220.4
72.5°	90.8	112.2	153.0	185.7	201.0
75°	72.4	95.9	135.7	163.3	172.4
77.5°	56.1	78.6	116.3	124.5	125.5
80°	41.8	62.2	86.7	87.7	90.8
82.5°	28.6	43.9	56.1	61.2	62.2
85°	18.4	25.5	31.6	32.7	34.7
87.5°	8.2	9.2	11.2	10.2	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)