

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: P308375

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-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: P308375
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-2700K
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: 1348.0 lumens
Efficiency: N/A
Efficacy: 71.3 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

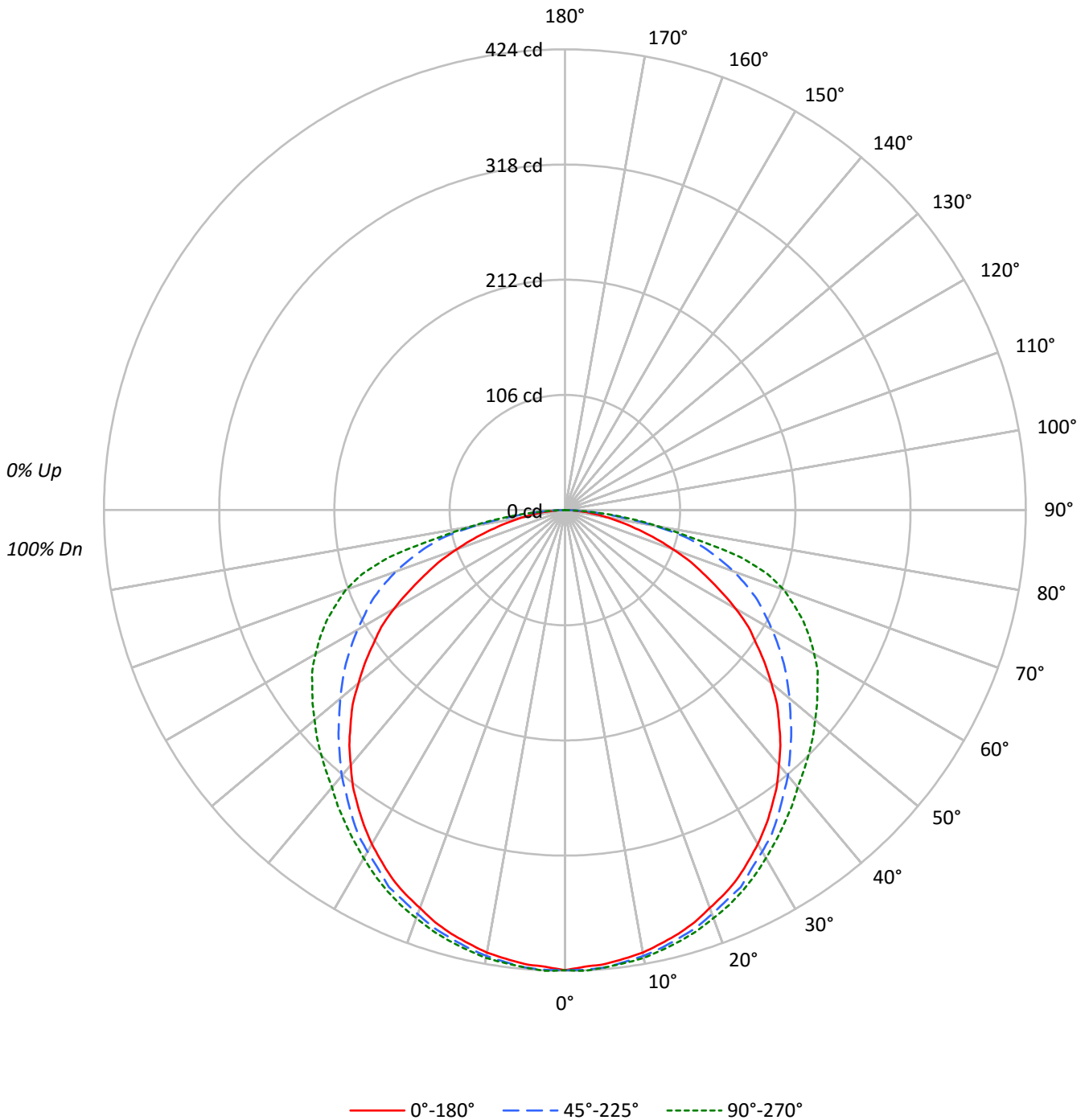
Input Watts (W): 18.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1139	1139	1139
5°	1133	1141	1141
10°	1130	1138	1144
15°	1124	1136	1144
20°	1116	1133	1144
25°	1113	1137	1148
30°	1103	1128	1149
35°	1091	1124	1156
40°	1076	1122	1170
45°	1061	1121	1208
50°	1038	1129	1258
55°	1010	1154	1331
60°	977	1185	1425
65°	909	1244	1541
70°	835	1303	1685
75°	732	1371	1743
80°	631	1306	1368
85°	550	948	1041



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	3.0
10°-20°	115.0	8.5
20°-30°	175.5	13.0
30°-40°	214.2	15.9
40°-50°	229.1	17.0
50°-60°	221.1	16.4
60°-70°	190.3	14.1
70°-80°	128.8	9.6
80°-90°	34.0	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°	330.5	24.5
0°-40°	544.7	40.4
0°-60°	994.9	73.8
0°-90°	1348.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1348.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	423	423	423	423	423	
5°	420	420	422	422	422	40
15°	404	405	408	410	410	114
25°	375	377	383	385	387	173
35°	332	335	342	349	352	208
45°	279	284	294	309	317	215
55°	215	222	246	271	284	193
65°	143	157	195	226	242	142
75°	70	93	132	159	168	76
85°	18	25	31	32	34	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	423.4	423.4	423.4	423.4	423.4
2.5°	420.5	421.4	423.4	423.4	424.4
5°	419.5	420.5	422.4	422.4	422.4
7.5°	416.5	417.5	419.5	420.5	420.5
10°	413.5	414.5	416.5	417.5	418.5
12.5°	408.6	409.5	412.5	414.5	414.5
15°	403.6	404.6	407.6	409.5	410.5
17.5°	397.6	399.6	402.6	404.6	405.6
20°	389.7	391.7	395.7	398.6	399.6
22.5°	382.8	384.8	388.7	391.7	393.7
25°	374.8	376.8	382.8	384.8	386.7
27.5°	364.9	366.9	371.9	375.8	378.8
30°	355.0	357.0	362.9	367.9	369.9
32.5°	344.1	347.1	354.0	358.0	361.0
35°	332.2	335.2	342.1	349.1	352.0
37.5°	320.3	323.3	330.2	339.1	343.1
40°	306.4	310.4	319.3	331.2	333.2
42.5°	293.5	298.5	306.4	320.3	325.3
45°	278.7	283.6	294.5	309.4	317.3
47.5°	264.8	269.7	281.6	299.5	309.4
50°	247.9	254.9	269.7	290.6	300.5
52.5°	232.0	238.0	257.8	280.6	292.5
55°	215.2	222.1	245.9	270.7	283.6
57.5°	200.3	206.3	233.0	260.8	275.7
60°	181.5	189.4	220.1	249.9	264.8
62.5°	161.6	173.5	207.3	238.0	253.9
65°	142.8	156.7	195.4	226.1	242.0
67.5°	125.9	140.8	180.5	213.2	228.1
70°	106.1	124.9	165.6	197.3	214.2
72.5°	88.3	109.1	148.7	180.5	195.4
75°	70.4	93.2	131.9	158.7	167.6
77.5°	54.5	76.4	113.0	121.0	122.0
80°	40.7	60.5	84.3	85.3	88.3
82.5°	27.8	42.6	54.5	59.5	60.5
85°	17.8	24.8	30.7	31.7	33.7
87.5°	7.9	8.9	10.9	9.9	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)