

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: P308386

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CA125-W2A-U-3500K**

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: P308386
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-CA125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 1430.0 lumens
Efficiency: N/A
Efficacy: 75.3 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

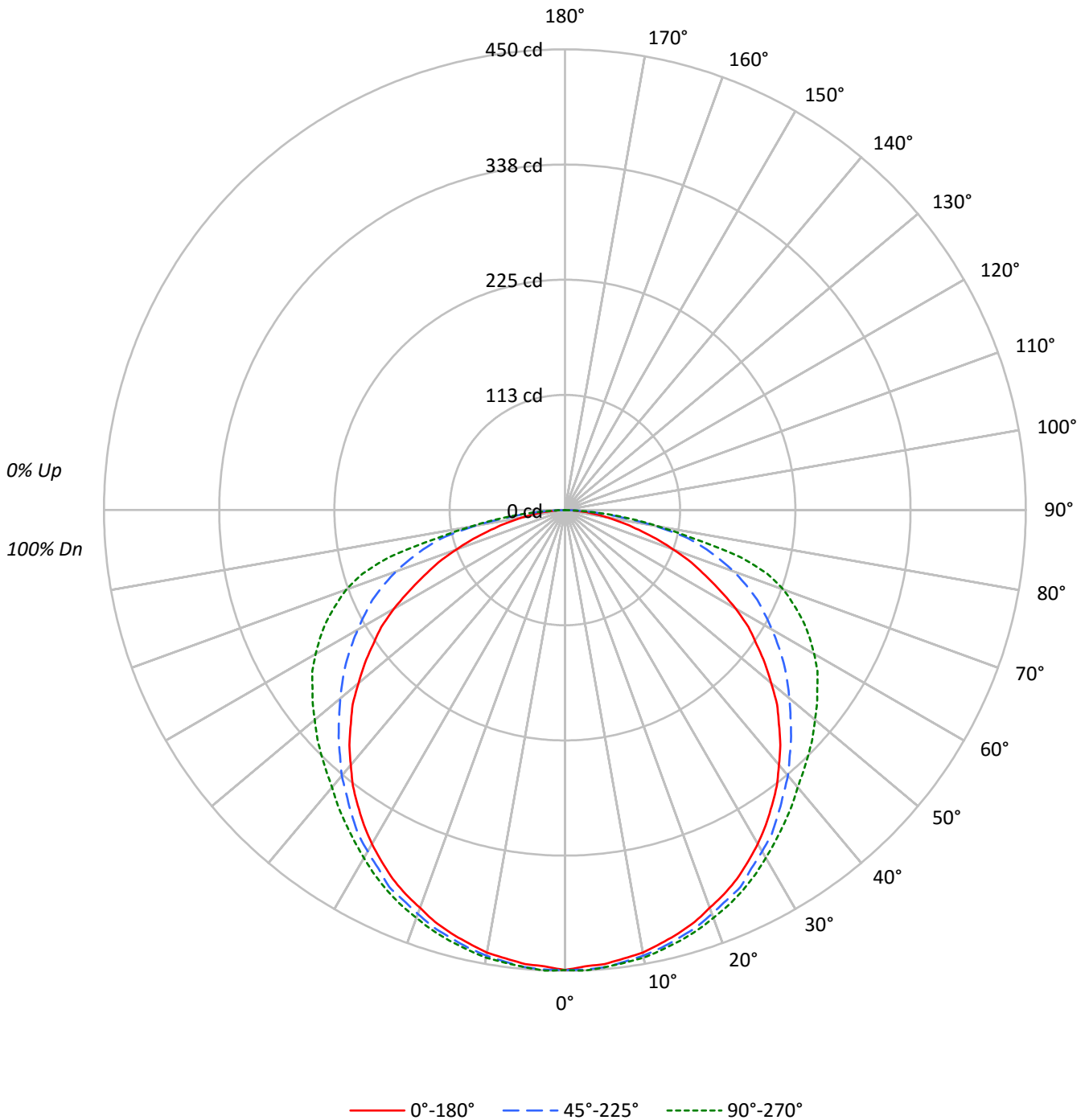
Input Watts (W): 19
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1209	1209	1209
5°	1202	1210	1210
10°	1199	1207	1213
15°	1193	1205	1213
20°	1184	1202	1214
25°	1181	1206	1218
30°	1170	1196	1219
35°	1158	1192	1227
40°	1142	1190	1242
45°	1125	1189	1281
50°	1101	1198	1334
55°	1071	1224	1412
60°	1036	1257	1512
65°	965	1319	1635
70°	886	1382	1788
75°	777	1455	1849
80°	668	1385	1450
85°	584	1007	1105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.5	3.0
10°-20°	122.0	8.5
20°-30°	186.1	13.0
30°-40°	227.3	15.9
40°-50°	243.0	17.0
50°-60°	234.6	16.4
60°-70°	201.9	14.1
70°-80°	136.6	9.6
80°-90°	36.1	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°	350.6	24.5
0°-40°	577.9	40.4
0°-60°	1055.4	73.8
0°-90°	1430.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1430.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	449	449	449	449	449	
5°	445	446	448	448	448	42
15°	428	429	432	434	436	121
25°	398	400	406	408	410	183
35°	352	356	363	370	373	221
45°	296	301	312	328	337	228
55°	228	236	261	287	301	205
65°	152	166	207	240	257	151
75°	75	99	140	168	178	80
85°	19	26	33	34	36	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	449.2	449.2	449.2	449.2	449.2
2.5°	446.0	447.1	449.2	449.2	450.2
5°	445.0	446.0	448.1	448.1	448.1
7.5°	441.8	442.9	445.0	446.0	446.0
10°	438.7	439.7	441.8	442.9	443.9
12.5°	433.4	434.5	437.6	439.7	439.7
15°	428.1	429.2	432.4	434.5	435.5
17.5°	421.8	423.9	427.1	429.2	430.3
20°	413.4	415.5	419.7	422.9	423.9
22.5°	406.1	408.2	412.4	415.5	417.6
25°	397.6	399.7	406.1	408.2	410.3
27.5°	387.1	389.2	394.5	398.7	401.8
30°	376.6	378.7	385.0	390.3	392.4
32.5°	365.0	368.2	375.6	379.8	382.9
35°	352.4	355.6	362.9	370.3	373.4
37.5°	339.8	342.9	350.3	359.8	364.0
40°	325.1	329.3	338.7	351.4	353.5
42.5°	311.4	316.6	325.1	339.8	345.0
45°	295.6	300.9	312.4	328.2	336.6
47.5°	280.9	286.1	298.8	317.7	328.2
50°	263.0	270.4	286.1	308.2	318.7
52.5°	246.2	252.5	273.5	297.7	310.3
55°	228.3	235.6	260.9	287.2	300.9
57.5°	212.5	218.8	247.2	276.7	292.4
60°	192.5	200.9	233.5	265.1	280.9
62.5°	171.5	184.1	219.9	252.5	269.3
65°	151.5	166.2	207.2	239.8	256.7
67.5°	133.6	149.4	191.5	226.2	242.0
70°	112.6	132.5	175.7	209.3	227.2
72.5°	93.6	115.7	157.8	191.5	207.2
75°	74.7	98.9	139.9	168.3	177.8
77.5°	57.9	81.0	119.9	128.3	129.4
80°	43.1	64.2	89.4	90.5	93.6
82.5°	29.5	45.2	57.9	63.1	64.2
85°	18.9	26.3	32.6	33.7	35.8
87.5°	8.4	9.5	11.6	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)