

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: P308418

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP250-W2A-U-5700K**

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: P308418  
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-CP250-W2A-U-5700K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB 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: 1422.0 lumens  
Efficiency: N/A  
Efficacy: 73.3 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

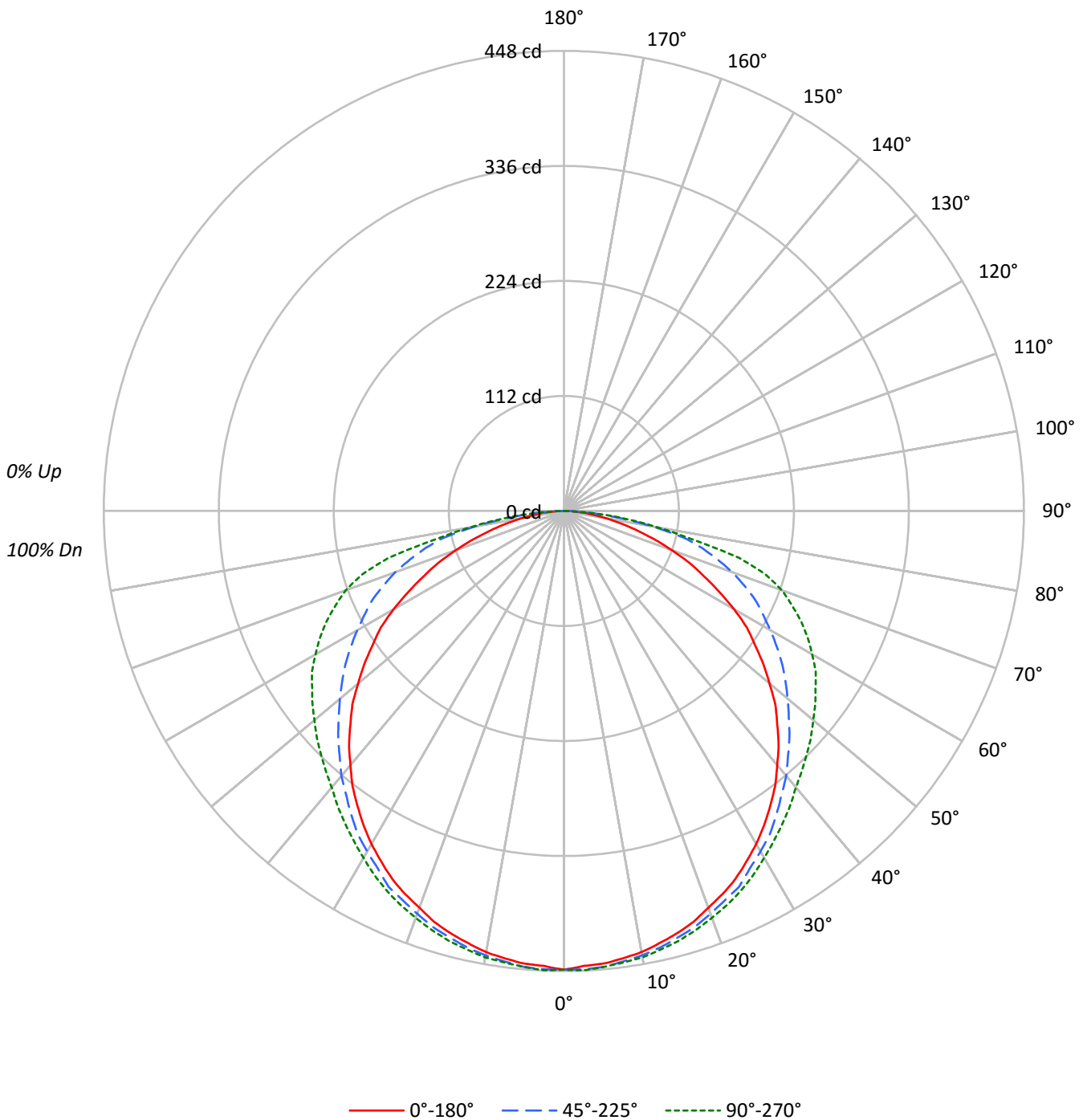
Input Watts (W): 19.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1202	1202	1202
5°	1195	1204	1204
10°	1192	1201	1206
15°	1186	1198	1207
20°	1177	1195	1207
25°	1174	1199	1211
30°	1164	1190	1212
35°	1151	1186	1220
40°	1135	1183	1235
45°	1118	1182	1274
50°	1095	1191	1327
55°	1065	1217	1404
60°	1030	1250	1503
65°	959	1312	1625
70°	880	1375	1778
75°	773	1446	1838
80°	665	1378	1443
85°	580	1000	1099



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.3	3.0
10°-20°	121.3	8.5
20°-30°	185.1	13.0
30°-40°	226.0	15.9
40°-50°	241.6	17.0
50°-60°	233.2	16.4
60°-70°	200.8	14.1
70°-80°	135.8	9.6
80°-90°	35.9	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°	348.7	24.5
0°-40°	574.7	40.4
0°-60°	1049.5	73.8
0°-90°	1422.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1422.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	447	447	447	447	447	
5°	442	444	446	446	446	42
15°	426	427	430	432	433	120
25°	395	398	404	406	408	182
35°	350	354	361	368	371	219
45°	294	299	311	326	335	227
55°	227	234	259	286	299	203
65°	151	165	206	238	255	150
75°	74	98	139	167	177	80
85°	19	26	32	34	36	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	446.7	446.7	446.7	446.7	446.7
2.5°	443.5	444.6	446.7	446.7	447.7
5°	442.5	443.5	445.6	445.6	445.6
7.5°	439.4	440.4	442.5	443.5	443.5
10°	436.2	437.3	439.4	440.4	441.4
12.5°	431.0	432.0	435.2	437.3	437.3
15°	425.8	426.8	429.9	432.0	433.1
17.5°	419.5	421.6	424.7	426.8	427.8
20°	411.1	413.2	417.4	420.5	421.6
22.5°	403.8	405.9	410.1	413.2	415.3
25°	395.4	397.5	403.8	405.9	408.0
27.5°	385.0	387.0	392.3	396.5	399.6
30°	374.5	376.6	382.9	388.1	390.2
32.5°	363.0	366.1	373.4	377.6	380.8
35°	350.4	353.6	360.9	368.2	371.4
37.5°	337.9	341.0	348.3	357.8	361.9
40°	323.2	327.4	336.8	349.4	351.5
42.5°	309.6	314.9	323.2	337.9	343.1
45°	293.9	299.2	310.7	326.4	334.7
47.5°	279.3	284.5	297.1	315.9	326.4
50°	261.5	268.8	284.5	306.5	317.0
52.5°	244.8	251.1	272.0	296.0	308.6
55°	227.0	234.3	259.4	285.6	299.2
57.5°	211.3	217.6	245.8	275.1	290.8
60°	191.4	199.8	232.2	263.6	279.3
62.5°	170.5	183.1	218.6	251.1	267.8
65°	150.6	165.3	206.1	238.5	255.2
67.5°	132.9	148.5	190.4	224.9	240.6
70°	111.9	131.8	174.7	208.2	226.0
72.5°	93.1	115.1	156.9	190.4	206.1
75°	74.3	98.3	139.1	167.4	176.8
77.5°	57.5	80.5	119.3	127.6	128.7
80°	42.9	63.8	88.9	90.0	93.1
82.5°	29.3	45.0	57.5	62.8	63.8
85°	18.8	26.2	32.4	33.5	35.6
87.5°	8.4	9.4	11.5	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)