

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: P308416

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP250-W2A-U-5000K**

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: P308416  
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-5000K  
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: 1404.0 lumens  
Efficiency: N/A  
Efficacy: 72.7 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

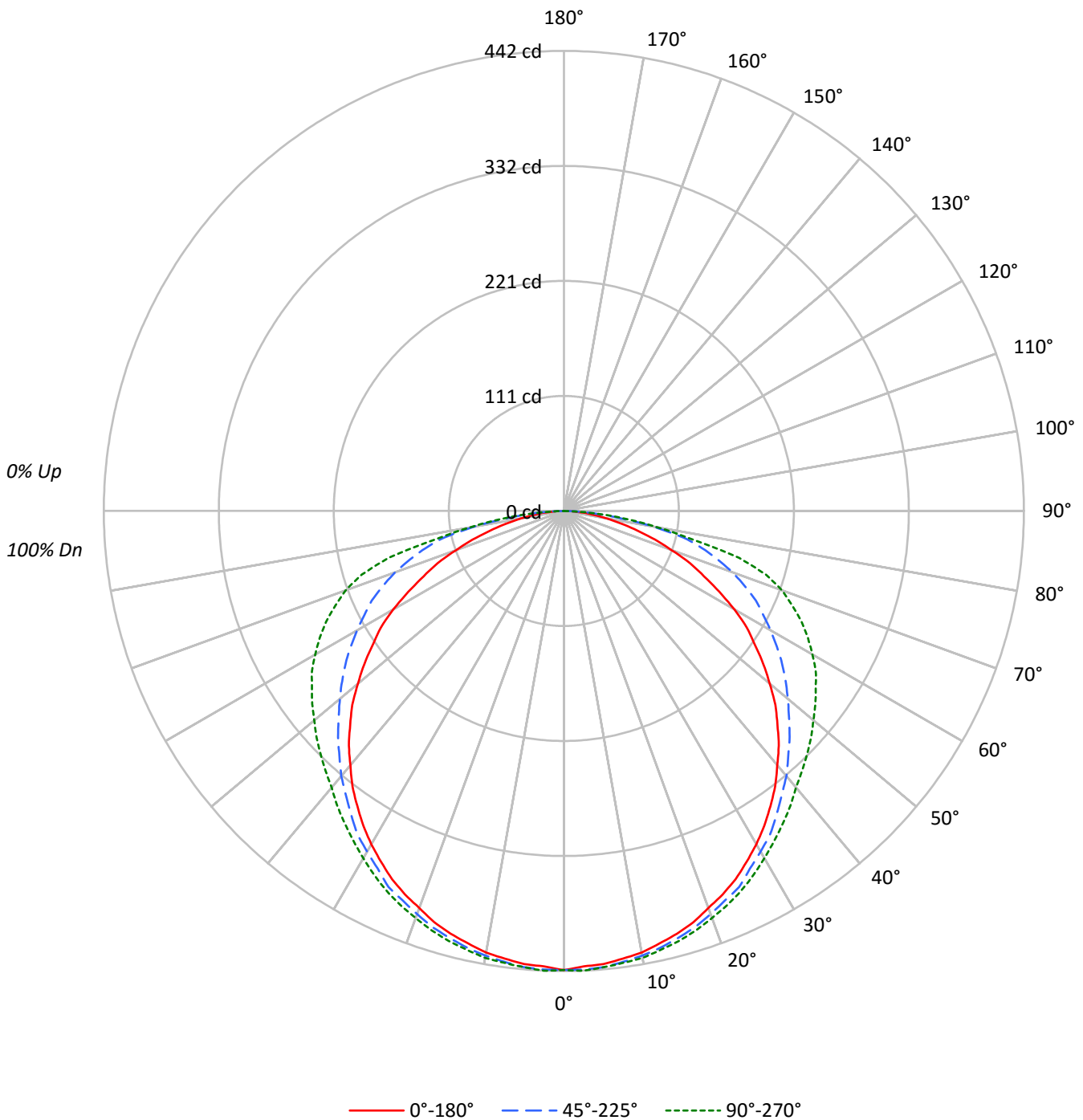
Input Watts (W): 19.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1187	1187	1187
5°	1180	1189	1189
10°	1177	1185	1191
15°	1171	1183	1191
20°	1162	1180	1192
25°	1159	1184	1196
30°	1149	1175	1197
35°	1137	1170	1205
40°	1121	1168	1219
45°	1104	1168	1258
50°	1081	1176	1310
55°	1051	1202	1386
60°	1017	1234	1484
65°	947	1296	1605
70°	869	1357	1755
75°	762	1429	1814
80°	656	1361	1424
85°	574	988	1084



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.7	3.0
10°-20°	119.8	8.5
20°-30°	182.7	13.0
30°-40°	223.1	15.9
40°-50°	238.6	17.0
50°-60°	230.3	16.4
60°-70°	198.2	14.1
70°-80°	134.1	9.6
80°-90°	35.4	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°	344.2	24.5
0°-40°	567.4	40.4
0°-60°	1036.2	73.8
0°-90°	1404.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1404.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	441	441	441	441	441	
5°	437	438	440	440	440	41
15°	420	421	424	427	428	119
25°	390	392	399	401	403	180
35°	346	349	356	364	367	216
45°	290	295	307	322	330	224
55°	224	231	256	282	295	201
65°	149	163	204	236	252	148
75°	73	97	137	165	174	79
85°	19	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°	441.0	441.0	441.0	441.0	441.0
2.5°	437.9	439.0	441.0	441.0	442.1
5°	436.9	437.9	440.0	440.0	440.0
7.5°	433.8	434.8	436.9	437.9	437.9
10°	430.7	431.7	433.8	434.8	435.9
12.5°	425.5	426.6	429.7	431.7	431.7
15°	420.4	421.4	424.5	426.6	427.6
17.5°	414.2	416.2	419.3	421.4	422.4
20°	405.9	408.0	412.1	415.2	416.2
22.5°	398.7	400.7	404.9	408.0	410.0
25°	390.4	392.5	398.7	400.7	402.8
27.5°	380.1	382.1	387.3	391.4	394.5
30°	369.8	371.8	378.0	383.2	385.2
32.5°	358.4	361.5	368.7	372.9	376.0
35°	346.0	349.1	356.3	363.6	366.7
37.5°	333.6	336.7	343.9	353.2	357.4
40°	319.1	323.3	332.6	345.0	347.0
42.5°	305.7	310.9	319.1	333.6	338.8
45°	290.2	295.4	306.8	322.2	330.5
47.5°	275.8	280.9	293.3	311.9	322.2
50°	258.2	265.4	280.9	302.6	312.9
52.5°	241.7	247.9	268.5	292.3	304.7
55°	224.1	231.4	256.1	282.0	295.4
57.5°	208.6	214.8	242.7	271.6	287.1
60°	189.0	197.3	229.3	260.3	275.8
62.5°	168.4	180.7	215.9	247.9	264.4
65°	148.7	163.2	203.5	235.5	252.0
67.5°	131.2	146.7	188.0	222.1	237.6
70°	110.5	130.1	172.5	205.5	223.1
72.5°	91.9	113.6	154.9	188.0	203.5
75°	73.3	97.1	137.4	165.3	174.5
77.5°	56.8	79.5	117.7	126.0	127.0
80°	42.3	63.0	87.8	88.8	91.9
82.5°	28.9	44.4	56.8	62.0	63.0
85°	18.6	25.8	32.0	33.1	35.1
87.5°	8.3	9.3	11.4	10.3	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)