

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: P309859

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-CP250-W2A-U-6500K**

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: P309859
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-UNV-L82765-RDP-CP250-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (336) 6500K 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: 1831.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

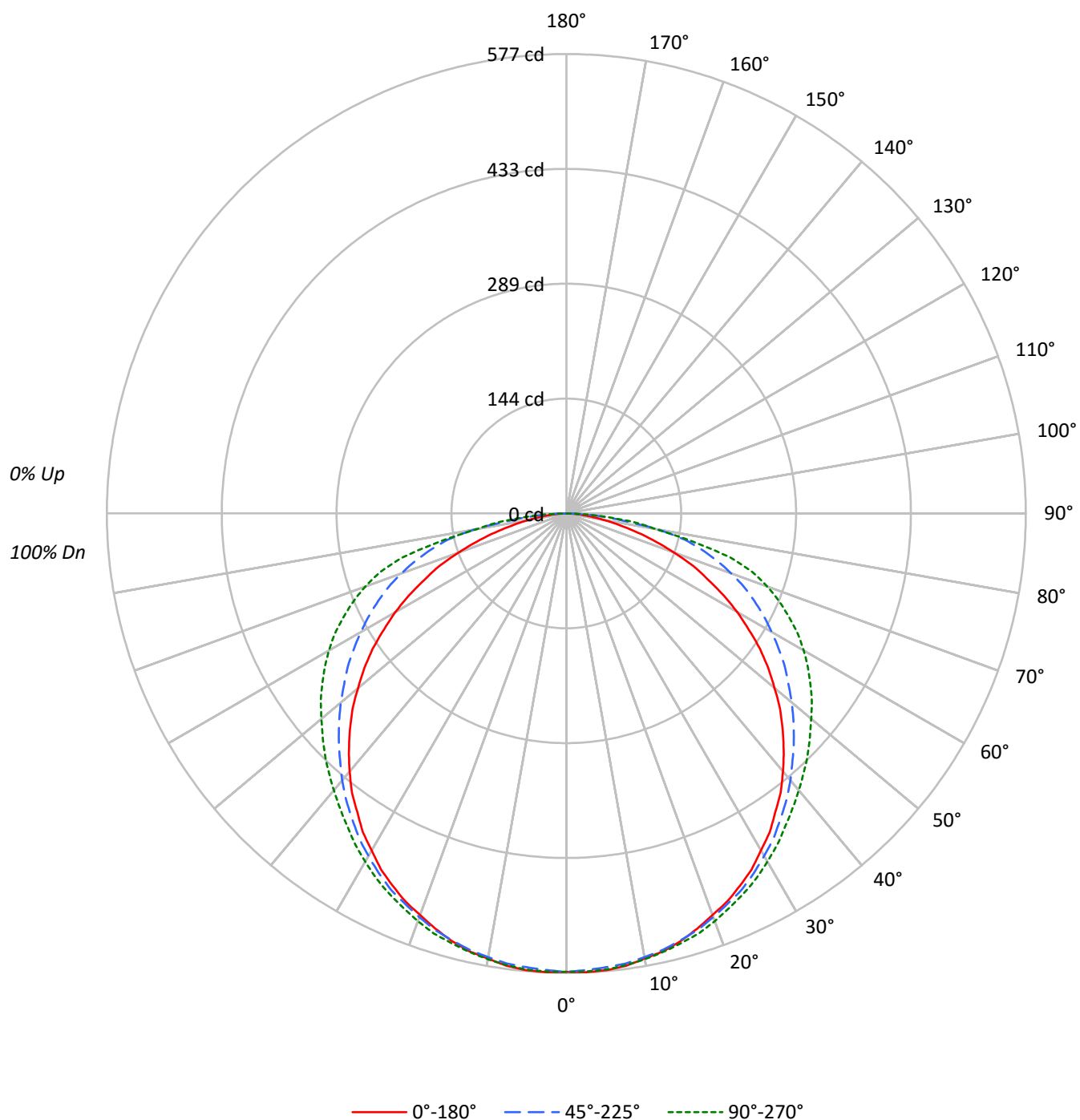
Input Watts (W): 22
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	775	775	775
5°	778	773	776
10°	775	773	777
15°	774	773	778
20°	768	772	780
25°	766	774	782
30°	759	772	785
35°	752	770	788
40°	743	769	798
45°	731	769	816
50°	715	774	840
55°	697	786	878
60°	667	802	926
65°	625	830	983
70°	568	868	1057
75°	481	916	1105
80°	380	922	893
85°	281	701	786



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.6	3.0
10°-20°	157.2	8.6
20°-30°	240.4	13.1
30°-40°	293.9	16.0
40°-50°	313.2	17.1
50°-60°	299.5	16.4
60°-70°	253.7	13.9
70°-80°	170.5	9.3
80°-90°	48.1	2.6
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°	452.2	24.7
0°-40°	746.1	40.7
0°-60°	1358.7	74.2
0°-90°	1831.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1831.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	576	576	576	576	576	
5°	576	575	572	575	575	55
15°	556	556	555	559	558	157
25°	516	518	521	526	527	238
35°	458	461	469	478	480	287
45°	384	390	404	421	429	296
55°	297	308	335	362	374	265
65°	196	216	261	295	309	195
75°	93	126	176	206	212	99
85°	18	37	45	49	51	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	575.8	575.8	575.8	575.8	575.8
2.5°	576.7	576.7	574.0	575.8	575.8
5°	575.8	574.9	572.2	574.9	574.9
7.5°	573.1	572.2	570.3	573.1	572.2
10°	567.6	567.6	565.8	568.5	568.5
12.5°	563.1	562.2	561.3	564.9	564.0
15°	555.8	555.8	554.9	559.4	558.5
17.5°	546.7	547.6	548.6	552.2	553.1
20°	536.7	538.6	539.5	544.9	544.9
22.5°	527.7	528.6	530.4	535.8	535.8
25°	515.9	517.7	521.3	525.8	526.8
27.5°	504.0	505.0	509.5	515.9	516.8
30°	488.6	491.3	496.8	504.0	505.0
32.5°	475.0	477.7	484.1	491.3	493.2
35°	457.7	461.4	468.6	477.7	479.5
37.5°	442.3	445.0	454.1	464.1	466.8
40°	423.2	428.7	437.8	449.6	454.1
42.5°	404.1	409.6	420.5	435.9	441.4
45°	384.2	390.5	404.1	421.4	428.7
47.5°	364.2	371.5	386.9	406.9	415.0
50°	341.5	350.6	369.6	392.3	401.4
52.5°	319.7	330.6	351.5	376.9	388.7
55°	297.0	307.9	335.1	361.5	374.2
57.5°	271.6	286.1	316.1	346.0	359.6
60°	247.9	261.6	297.9	330.6	344.2
62.5°	222.5	240.7	279.7	314.2	327.9
65°	196.2	216.2	260.7	295.2	308.8
67.5°	172.6	194.4	241.6	276.1	289.7
70°	144.4	171.6	220.7	255.2	268.8
72.5°	118.1	148.0	198.9	232.5	245.2
75°	92.6	126.2	176.2	206.2	212.5
77.5°	69.0	104.4	152.6	165.3	160.8
80°	49.0	83.6	119.0	112.6	115.3
82.5°	31.8	63.6	73.6	83.6	86.3
85°	18.2	37.2	45.4	49.0	50.9
87.5°	8.2	13.6	18.2	18.2	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)