

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: P309825

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-CA125-W2A-U-3000K**

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: P309825
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-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 1776.0 lumens
Efficiency: N/A
Efficacy: 84.6 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

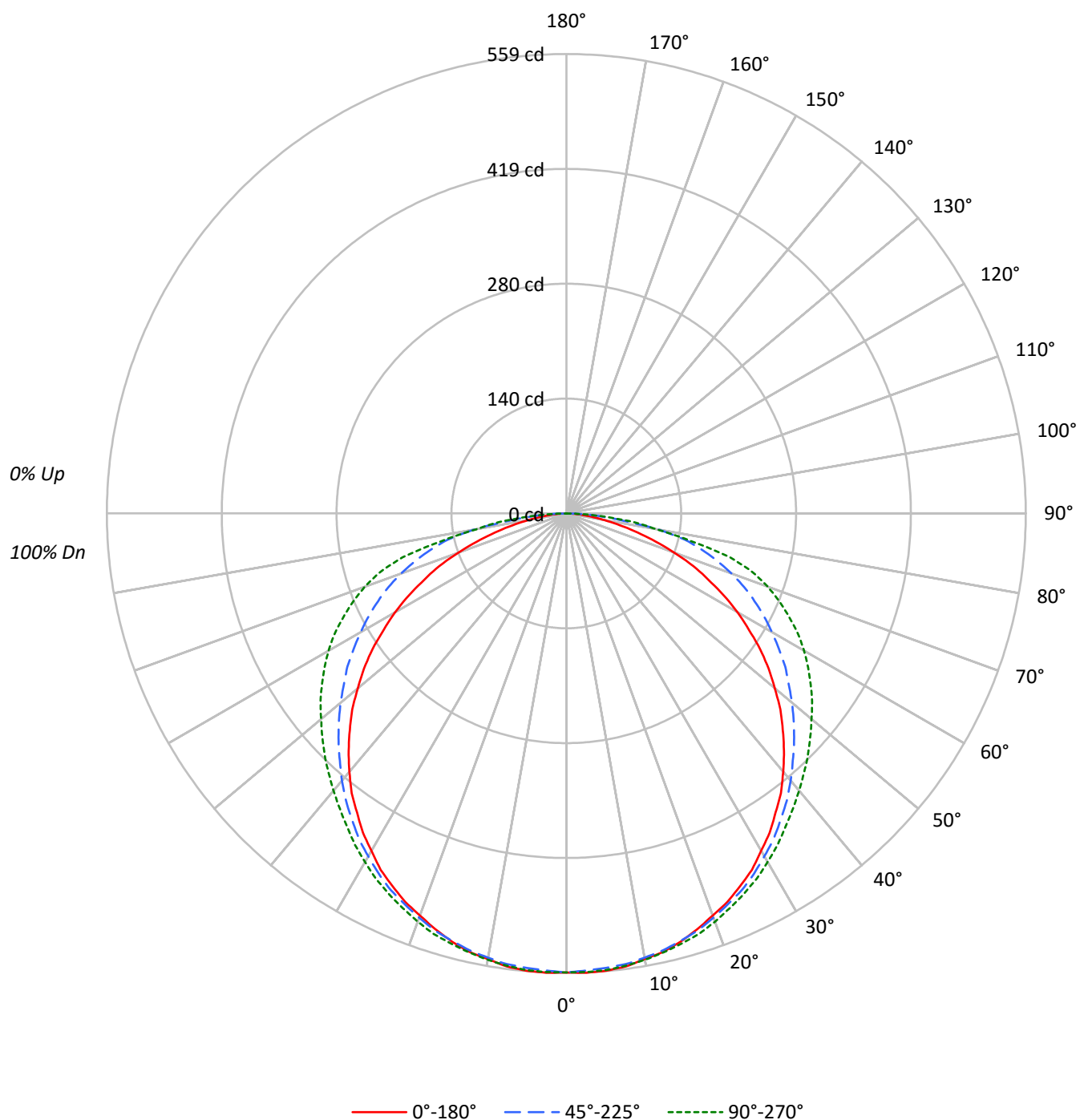
Input Watts (W): 21
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	68	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°	751	751	751
5°	754	750	753
10°	752	750	753
15°	751	750	755
20°	745	749	757
25°	743	751	758
30°	736	749	761
35°	729	747	764
40°	721	746	774
45°	709	746	791
50°	693	750	815
55°	676	763	851
60°	647	777	899
65°	606	805	954
70°	551	842	1026
75°	467	888	1071
80°	369	894	867
85°	272	679	761



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.0	3.0
10°-20°	152.5	8.6
20°-30°	233.2	13.1
30°-40°	285.0	16.0
40°-50°	303.8	17.1
50°-60°	290.5	16.4
60°-70°	246.1	13.9
70°-80°	165.4	9.3
80°-90°	46.6	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°	438.6	24.7
0°-40°	723.7	40.7
0°-60°	1317.9	74.2
0°-90°	1776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1776.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	558	558	555	558	558	53
15°	539	539	538	543	542	152
25°	500	502	506	510	511	231
35°	444	448	455	463	465	278
45°	373	379	392	409	416	287
55°	288	299	325	351	363	257
65°	190	210	253	286	300	189
75°	90	122	171	200	206	96
85°	18	36	44	48	49	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	558.5	558.5	558.5	558.5	558.5
2.5°	559.4	559.4	556.7	558.5	558.5
5°	558.5	557.6	555.0	557.6	557.6
7.5°	555.9	555.0	553.2	555.9	555.0
10°	550.6	550.6	548.8	551.5	551.5
12.5°	546.2	545.3	544.4	547.9	547.0
15°	539.1	539.1	538.2	542.6	541.8
17.5°	530.3	531.2	532.1	535.6	536.5
20°	520.6	522.4	523.3	528.6	528.6
22.5°	511.8	512.7	514.5	519.7	519.7
25°	500.4	502.1	505.6	510.1	510.9
27.5°	488.9	489.8	494.2	500.4	501.2
30°	473.9	476.6	481.9	488.9	489.8
32.5°	460.7	463.4	469.5	476.6	478.3
35°	444.0	447.5	454.6	463.4	465.1
37.5°	429.0	431.6	440.5	450.1	452.8
40°	410.5	415.8	424.6	436.1	440.5
42.5°	392.0	397.3	407.9	422.8	428.1
45°	372.6	378.8	392.0	408.7	415.8
47.5°	353.2	360.3	375.3	394.7	402.6
50°	331.2	340.0	358.5	380.6	389.4
52.5°	310.1	320.7	340.9	365.6	377.0
55°	288.1	298.6	325.1	350.6	362.9
57.5°	263.4	277.5	306.6	335.6	348.8
60°	240.5	253.7	288.9	320.7	333.9
62.5°	215.8	233.4	271.3	304.8	318.0
65°	190.3	209.7	252.8	286.3	299.5
67.5°	167.4	188.5	234.3	267.8	281.0
70°	140.1	166.5	214.1	247.5	260.8
72.5°	114.5	143.6	192.9	225.5	237.8
75°	89.9	122.4	170.9	200.0	206.1
77.5°	66.9	101.3	148.0	160.3	155.9
80°	47.6	81.0	115.4	109.2	111.9
82.5°	30.8	61.7	71.4	81.0	83.7
85°	17.6	36.1	44.0	47.6	49.3
87.5°	7.9	13.2	17.6	17.6	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)