

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: P309920

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-CA125-W2A-U-5500K**

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: P309920
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: 24FCZ2-35HE-UNV-L82765-RDP-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 5500K 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: 2242.0 lumens
Efficiency: N/A
Efficacy: 84.0 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

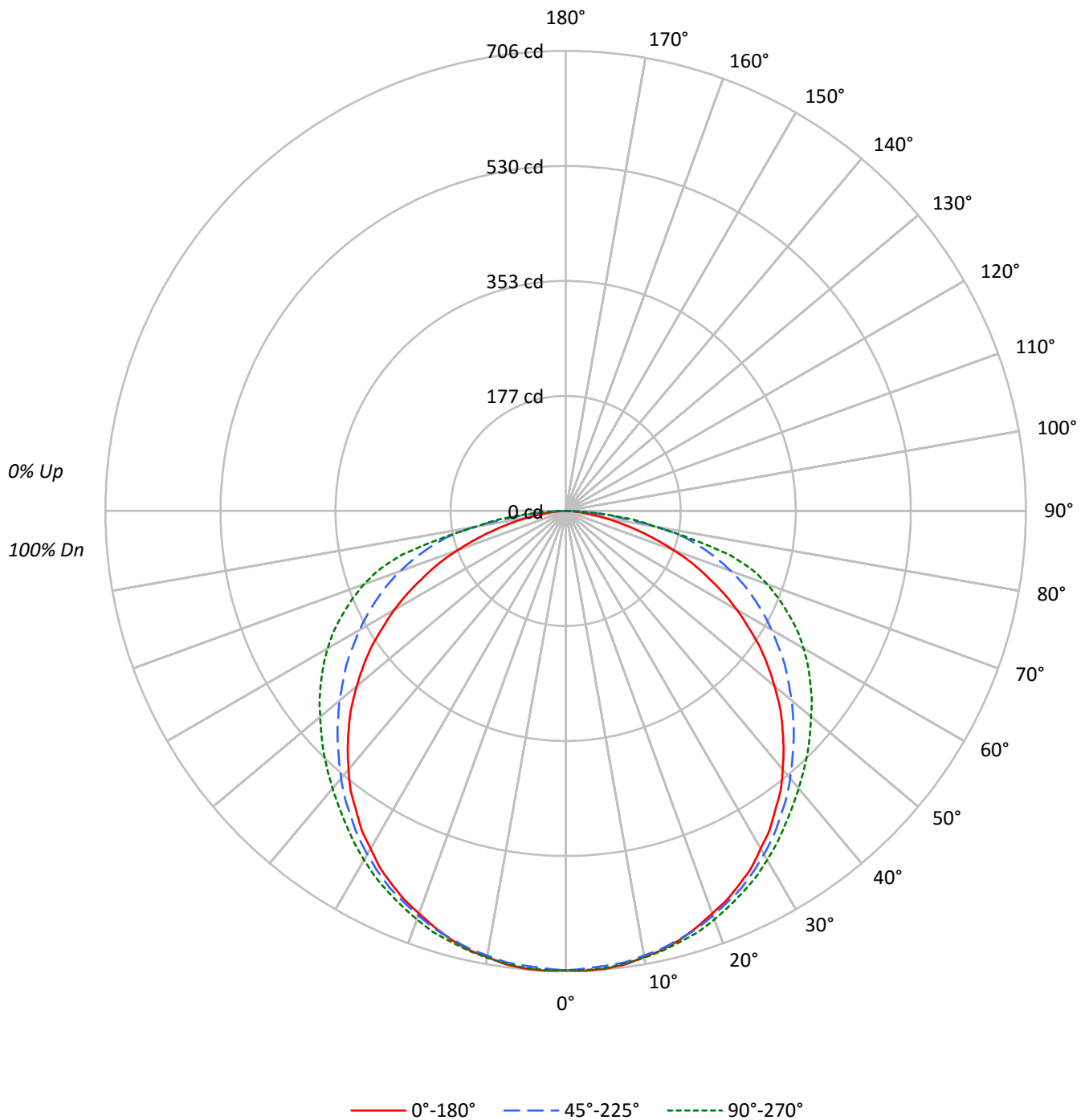
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	949	949	949
5°	952	946	951
10°	950	947	951
15°	948	947	953
20°	941	946	955
25°	938	948	958
30°	930	945	961
35°	921	942	964
40°	910	941	977
45°	895	942	999
50°	875	947	1029
55°	853	962	1075
60°	817	982	1134
65°	765	1016	1204
70°	696	1063	1295
75°	590	1121	1353
80°	466	1129	1094
85°	343	858	962



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.9	3.0
10°-20°	192.5	8.6
20°-30°	294.3	13.1
30°-40°	359.8	16.0
40°-50°	383.5	17.1
50°-60°	366.7	16.4
60°-70°	310.6	13.9
70°-80°	208.8	9.3
80°-90°	58.9	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°	553.7	24.7
0°-40°	913.5	40.7
0°-60°	1663.7	74.2
0°-90°	2242.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2242.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	705	705	705	705	705	
5°	705	704	701	704	704	67
15°	681	681	680	685	684	192
25°	632	634	638	644	645	291
35°	560	565	574	585	587	351
45°	470	478	495	516	525	363
55°	364	377	410	443	458	324
65°	240	265	319	361	378	238
75°	113	155	216	252	260	121
85°	22	46	56	60	62	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	705.0	705.0	705.0	705.0	705.0
2.5°	706.2	706.2	702.8	705.0	705.0
5°	705.0	703.9	700.6	703.9	703.9
7.5°	701.7	700.6	698.4	701.7	700.6
10°	695.0	695.0	692.8	696.1	696.1
12.5°	689.5	688.4	687.3	691.7	690.6
15°	680.6	680.6	679.5	685.0	683.9
17.5°	669.5	670.6	671.7	676.1	677.2
20°	657.2	659.5	660.6	667.2	667.2
22.5°	646.1	647.2	649.4	656.1	656.1
25°	631.6	633.9	638.3	643.9	645.0
27.5°	617.2	618.3	623.9	631.6	632.8
30°	598.3	601.6	608.3	617.2	618.3
32.5°	581.6	584.9	592.7	601.6	603.8
35°	560.5	564.9	573.8	584.9	587.2
37.5°	541.6	544.9	556.0	568.3	571.6
40°	518.2	524.9	536.0	550.5	556.0
42.5°	494.9	501.5	514.9	533.8	540.5
45°	470.4	478.2	494.9	516.0	524.9
47.5°	445.9	454.8	473.7	498.2	508.2
50°	418.1	429.3	452.6	480.4	491.5
52.5°	391.4	404.8	430.4	461.5	476.0
55°	363.6	377.0	410.3	442.6	458.2
57.5°	332.5	350.3	387.0	423.7	440.4
60°	303.6	320.3	364.8	404.8	421.5
62.5°	272.5	294.7	342.5	384.8	401.5
65°	240.2	264.7	319.2	361.4	378.1
67.5°	211.3	238.0	295.8	338.1	354.7
70°	176.8	210.2	270.2	312.5	329.2
72.5°	144.6	181.3	243.5	284.7	300.3
75°	113.4	154.6	215.7	252.4	260.2
77.5°	84.5	127.9	186.8	202.4	196.8
80°	60.1	102.3	145.7	137.9	141.2
82.5°	38.9	77.8	90.1	102.3	105.6
85°	22.2	45.6	55.6	60.1	62.3
87.5°	10.0	16.7	22.2	22.2	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)