

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: P309267

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-HRP-CP250-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: P309267
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-HRP-CP250-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB 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: 2138.0 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

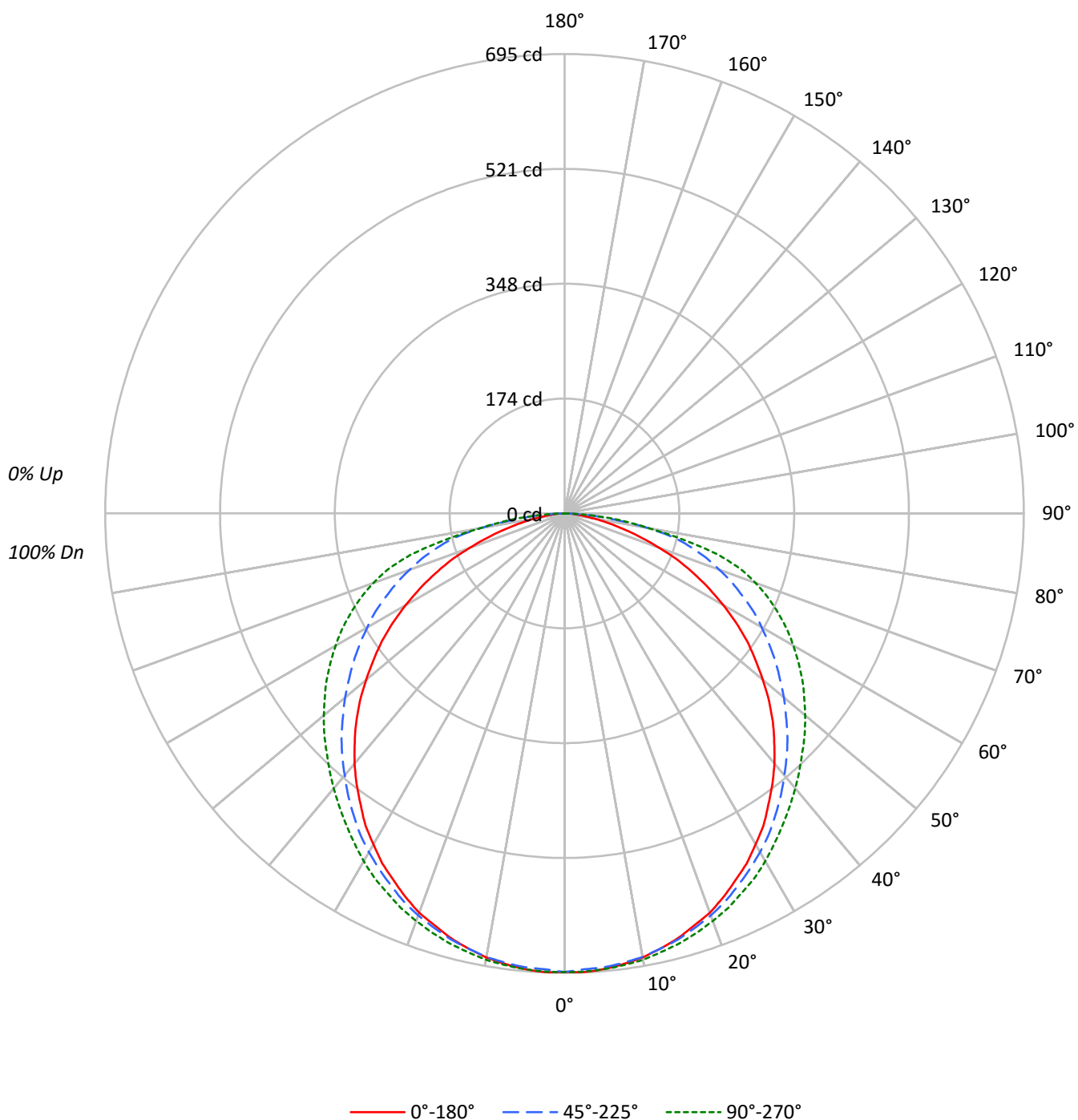
Input Watts (W): 25.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	933	933	933
5°	935	931	935
10°	932	931	937
15°	926	929	938
20°	920	927	939
25°	909	922	941
30°	898	919	944
35°	884	914	945
40°	868	909	954
45°	848	908	969
50°	821	907	995
55°	791	913	1031
60°	747	927	1077
65°	690	949	1137
70°	602	982	1211
75°	489	1033	1252
80°	360	1013	1013
85°	276	746	843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.7	3.1
10°-20°	188.7	8.8
20°-30°	287.3	13.4
30°-40°	348.8	16.3
40°-50°	368.5	17.2
50°-60°	347.8	16.3
60°-70°	289.1	13.5
70°-80°	190.2	8.9
80°-90°	51.8	2.4
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°	541.7	25.3
0°-40°	890.5	41.7
0°-60°	1606.8	75.2
0°-90°	2138.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2138.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	694	694	694	694	694	
5°	692	692	689	692	692	66
15°	665	666	667	673	673	188
25°	612	616	621	632	634	282
35°	538	544	557	571	576	337
45°	446	455	477	500	509	343
55°	337	352	389	426	440	301
65°	217	242	298	342	357	214
75°	94	137	199	235	241	101
85°	18	39	48	54	55	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	693.7	693.7	693.7	693.7	693.7
2.5°	694.6	693.7	690.1	693.7	693.7
5°	691.9	691.9	689.2	691.9	691.9
7.5°	687.4	687.4	685.6	689.2	689.2
10°	682.0	682.0	681.1	685.6	685.6
12.5°	674.0	674.9	674.0	679.4	679.4
15°	665.0	665.9	666.8	673.1	673.1
17.5°	653.4	655.2	657.0	664.1	665.0
20°	642.7	643.6	647.1	655.2	656.1
22.5°	628.3	631.0	635.5	643.6	646.2
25°	612.2	615.8	621.2	631.9	633.7
27.5°	597.0	599.7	606.9	618.5	622.1
30°	578.2	582.7	591.6	603.3	607.7
32.5°	560.3	564.8	575.5	588.1	591.6
35°	537.9	544.2	556.7	571.1	575.5
37.5°	516.5	522.7	537.9	554.0	559.4
40°	494.1	501.2	517.3	536.1	543.3
42.5°	469.9	479.8	497.7	518.2	526.3
45°	445.7	454.7	477.1	500.3	509.3
47.5°	419.8	430.5	454.7	482.4	493.2
50°	392.0	405.5	433.2	463.6	475.3
52.5°	364.3	379.5	410.8	444.8	457.4
55°	337.4	351.8	389.4	426.1	439.5
57.5°	307.9	325.8	367.0	406.4	419.8
60°	277.5	297.2	344.6	385.8	400.1
62.5°	247.0	269.4	323.1	364.3	379.5
65°	216.6	241.7	298.1	341.9	357.1
67.5°	187.1	214.8	274.8	318.6	333.9
70°	153.1	188.0	249.7	292.7	307.9
72.5°	121.7	162.0	225.6	265.8	279.3
75°	94.0	136.9	198.7	235.4	240.8
77.5°	68.9	111.9	171.0	183.5	184.4
80°	46.5	89.5	130.7	128.9	130.7
82.5°	30.4	67.1	82.3	92.2	93.1
85°	17.9	39.4	48.3	53.7	54.6
87.5°	9.0	13.4	17.0	17.9	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)