

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: P309274

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-HRP-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: P309274
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-6500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 2367.0 lumens
Efficiency: N/A
Efficacy: 87.0 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

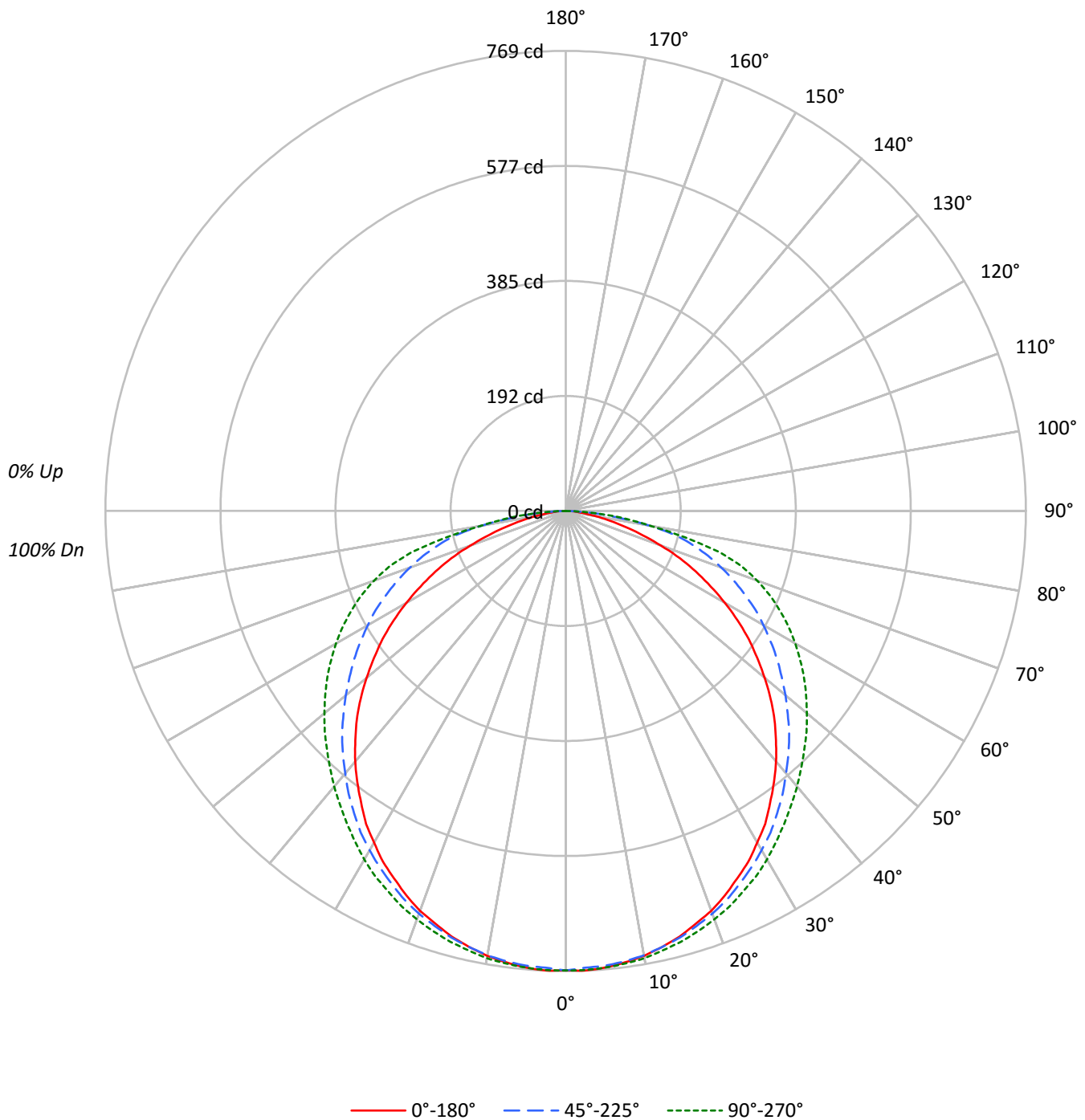
Input Watts (W): 27.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1033	1033	1033
5°	1035	1031	1035
10°	1032	1030	1037
15°	1026	1028	1038
20°	1019	1026	1040
25°	1006	1021	1042
30°	994	1018	1045
35°	978	1012	1047
40°	961	1006	1056
45°	939	1005	1073
50°	908	1004	1101
55°	876	1011	1141
60°	827	1027	1192
65°	763	1051	1259
70°	666	1088	1341
75°	541	1144	1386
80°	399	1121	1121
85°	306	826	932



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.8	3.1
10°-20°	208.9	8.8
20°-30°	318.0	13.4
30°-40°	386.2	16.3
40°-50°	408.0	17.2
50°-60°	385.0	16.3
60°-70°	320.1	13.5
70°-80°	210.6	8.9
80°-90°	57.4	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°	599.7	25.3
0°-40°	985.9	41.7
0°-60°	1778.9	75.2
0°-90°	2367.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2367.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	766	766	763	766	766	73
15°	736	737	738	745	745	208
25°	678	682	688	700	702	313
35°	596	602	616	632	637	373
45°	494	503	528	554	564	380
55°	374	389	431	472	486	333
65°	240	268	330	378	395	237
75°	104	152	220	261	267	112
85°	20	44	54	60	60	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	768.0	768.0	768.0	768.0	768.0
2.5°	769.0	768.0	764.0	768.0	768.0
5°	766.0	766.0	763.0	766.0	766.0
7.5°	761.0	761.0	759.1	763.0	763.0
10°	755.1	755.1	754.1	759.1	759.1
12.5°	746.2	747.2	746.2	752.1	752.1
15°	736.3	737.3	738.2	745.2	745.2
17.5°	723.4	725.4	727.3	735.3	736.3
20°	711.5	712.5	716.4	725.4	726.4
22.5°	695.6	698.6	703.6	712.5	715.5
25°	677.8	681.8	687.7	699.6	701.6
27.5°	661.0	663.9	671.9	684.7	688.7
30°	640.1	645.1	655.0	667.9	672.8
32.5°	620.3	625.3	637.2	651.0	655.0
35°	595.6	602.5	616.4	632.2	637.2
37.5°	571.8	578.7	595.6	613.4	619.3
40°	547.0	554.9	572.8	593.6	601.5
42.5°	520.2	531.1	551.0	573.8	582.7
45°	493.5	503.4	528.2	553.9	563.8
47.5°	464.7	476.6	503.4	534.1	546.0
50°	434.0	448.9	479.6	513.3	526.2
52.5°	403.3	420.2	454.8	492.5	506.4
55°	373.6	389.4	431.1	471.7	486.5
57.5°	340.9	360.7	406.3	449.9	464.7
60°	307.2	329.0	381.5	427.1	442.9
62.5°	273.5	298.3	357.7	403.3	420.2
65°	239.8	267.6	330.0	378.5	395.4
67.5°	207.1	237.8	304.2	352.8	369.6
70°	169.4	208.1	276.5	324.0	340.9
72.5°	134.8	179.4	249.7	294.3	309.2
75°	104.0	151.6	220.0	260.6	266.6
77.5°	76.3	123.9	189.3	203.1	204.1
80°	51.5	99.1	144.7	142.7	144.7
82.5°	33.7	74.3	91.2	102.1	103.1
85°	19.8	43.6	53.5	59.5	60.4
87.5°	9.9	14.9	18.8	19.8	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)