

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: P307156

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-CP250-W2A-U-5000K**

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: P307156
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-35-UNV-L82765-HRP-CP250-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 5000K 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: 2442.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

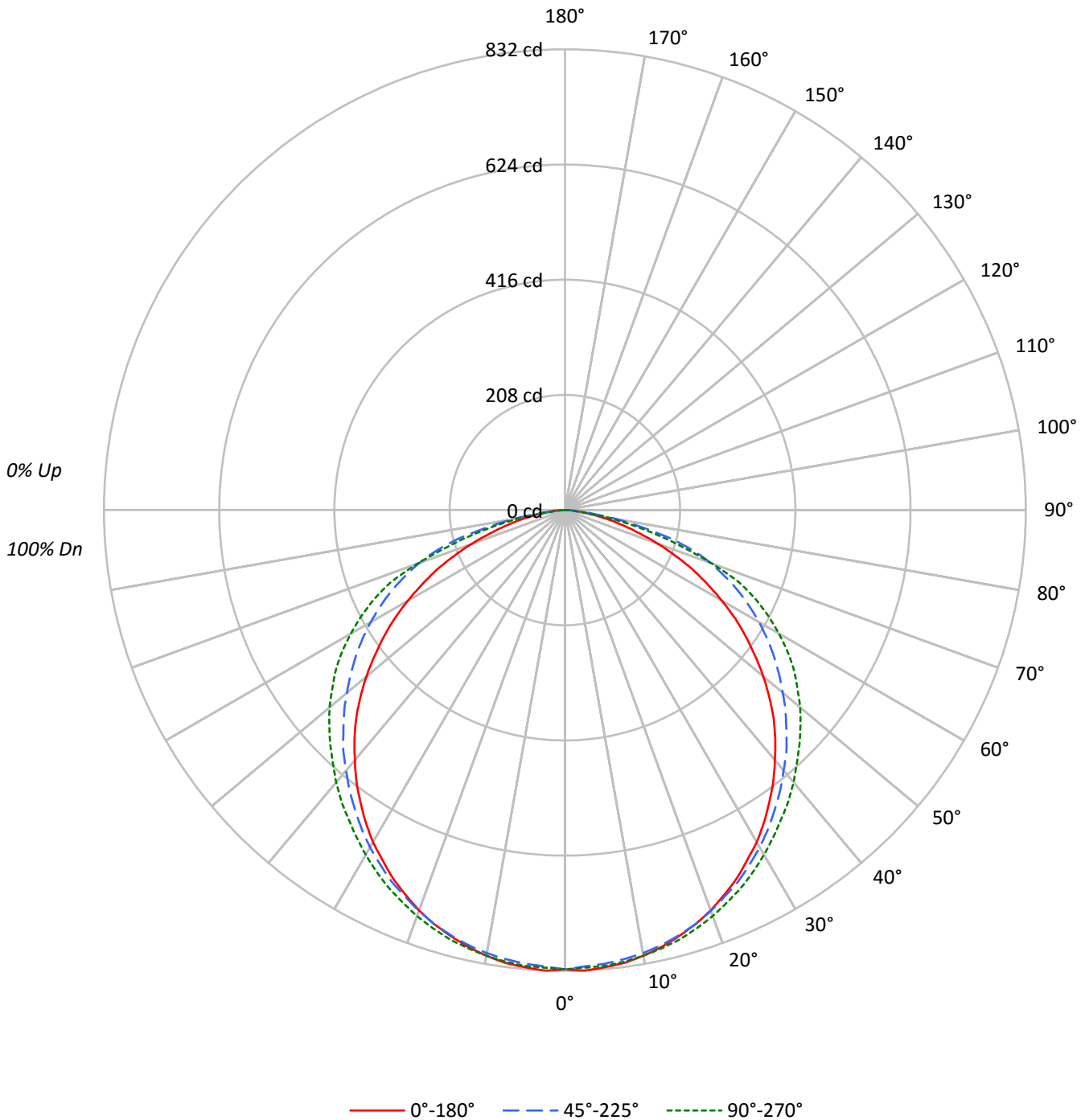
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2232	2232	2232
5°	2238	2222	2232
10°	2232	2220	2232
15°	2218	2214	2235
20°	2203	2206	2234
25°	2180	2198	2234
30°	2152	2186	2233
35°	2114	2169	2237
40°	2072	2158	2255
45°	2028	2151	2280
50°	1958	2151	2321
55°	1873	2161	2371
60°	1760	2178	2401
65°	1623	2200	2415
70°	1414	2205	2223
75°	1166	2051	1797
80°	916	1475	1203
85°	710	568	284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.5	3.2
10°-20°	225.3	9.2
20°-30°	342.1	14.0
30°-40°	414.5	17.0
40°-50°	436.8	17.9
50°-60°	407.8	16.7
60°-70°	325.9	13.3
70°-80°	179.3	7.3
80°-90°	31.7	1.3
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°	645.9	26.5
0°-40°	1060.5	43.4
0°-60°	1905.1	78.0
0°-90°	2442.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2442.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	829	829	829	829	829	
5°	828	826	822	828	826	79
15°	796	796	795	802	802	225
25°	734	736	740	751	752	338
35°	644	650	660	677	681	403
45°	533	543	565	590	599	410
55°	399	419	461	493	505	356
65°	255	287	346	374	379	251
75°	112	160	197	177	173	121
85°	23	29	18	12	9	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	829.3	829.3	829.3	829.3	829.3
2.5°	832.4	830.1	824.7	829.3	827.0
5°	828.5	826.2	822.4	827.8	826.2
7.5°	824.7	821.6	817.8	823.9	822.4
10°	817.0	814.7	812.4	817.8	817.0
12.5°	807.8	807.0	804.7	810.9	810.1
15°	796.3	796.3	794.8	802.4	802.4
17.5°	784.0	783.2	784.0	792.5	791.7
20°	769.4	769.4	770.2	780.2	780.2
22.5°	751.8	752.5	754.8	767.1	766.3
25°	734.1	735.6	740.2	751.0	752.5
27.5°	712.6	716.4	721.8	734.9	736.4
30°	692.6	694.9	703.4	715.7	718.7
32.5°	668.8	673.4	682.6	696.5	700.3
35°	643.5	649.6	660.4	677.3	681.1
37.5°	618.1	623.5	638.1	655.8	662.7
40°	589.7	599.0	614.3	634.3	642.0
42.5°	562.1	571.3	592.0	612.8	619.7
45°	532.9	542.9	565.2	590.5	599.0
47.5°	500.7	512.2	540.6	567.5	576.7
50°	467.6	482.2	513.7	543.7	554.4
52.5°	433.1	451.5	487.6	519.1	529.1
55°	399.3	419.3	460.7	493.0	505.3
57.5°	364.7	386.2	433.1	469.9	476.9
60°	327.1	353.2	404.7	436.9	446.1
62.5°	290.3	320.2	375.5	406.2	413.9
65°	254.9	287.2	345.5	374.0	379.3
67.5°	216.5	254.9	312.5	338.6	340.2
70°	179.7	224.2	280.3	292.6	282.6
72.5°	143.6	191.2	242.7	232.7	224.2
75°	112.1	160.5	197.3	177.4	172.8
77.5°	82.9	131.3	141.3	130.5	122.1
80°	59.1	103.7	95.2	81.4	77.6
82.5°	40.7	65.3	52.2	40.7	35.3
85°	23.0	29.2	18.4	11.5	9.2
87.5°	10.0	6.9	3.8	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)