

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: P308278

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CP250-W2A-U-3500K**

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: P308278
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-39HE-UNV-L82765-HRP-CP250-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 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: 2497.0 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

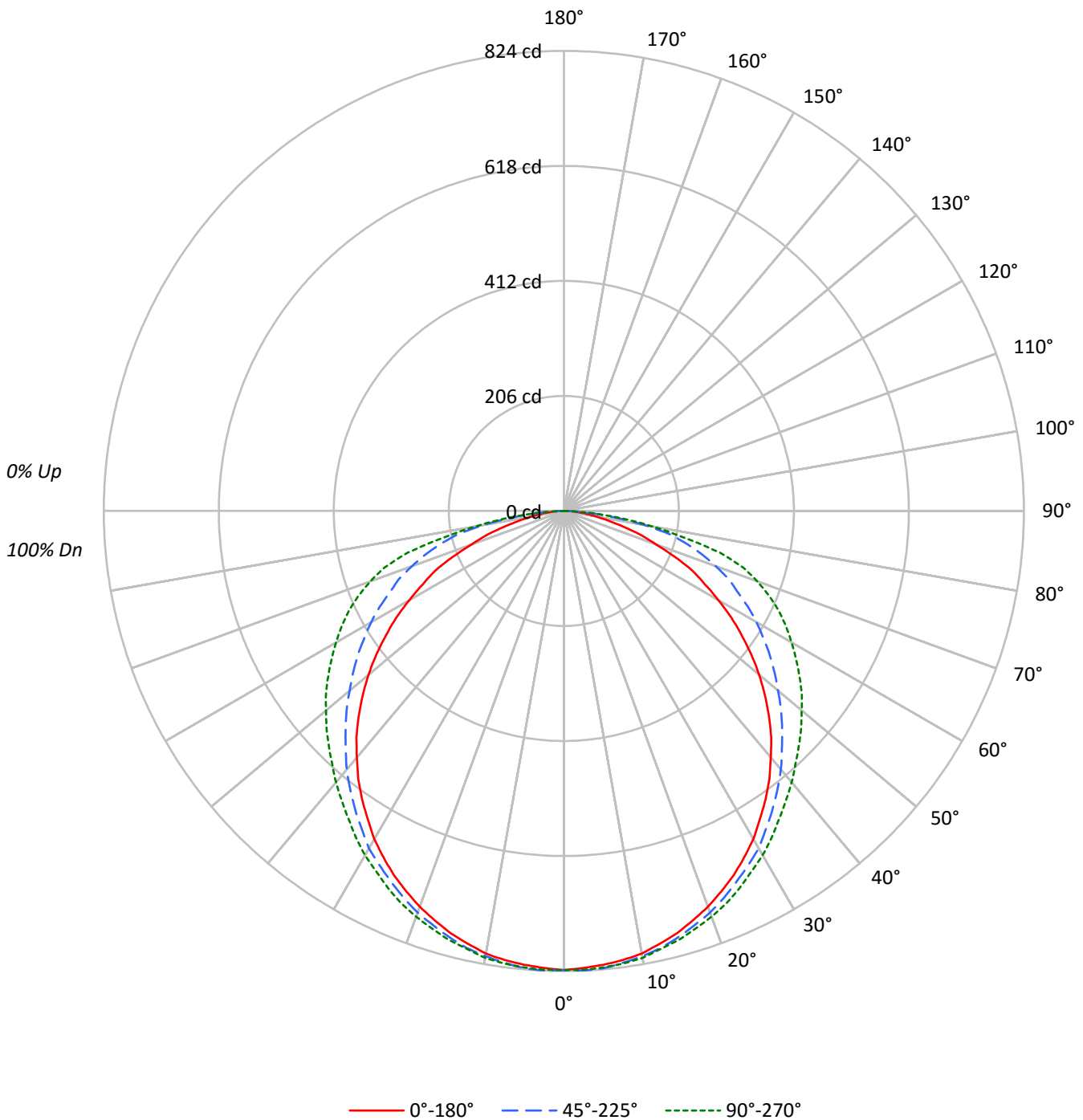
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2213	2213	2213
5°	2204	2221	2217
10°	2199	2212	2221
15°	2181	2203	2216
20°	2161	2192	2215
25°	2137	2175	2212
30°	2110	2168	2212
35°	2070	2142	2210
40°	2025	2125	2230
45°	1978	2104	2266
50°	1912	2097	2328
55°	1825	2114	2417
60°	1721	2145	2535
65°	1625	2187	2708
70°	1388	2280	2900
75°	1162	2375	3013
80°	951	2295	2514
85°	827	1701	1849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	3.1
10°-20°	222.9	8.9
20°-30°	337.8	13.5
30°-40°	407.9	16.3
40°-50°	428.6	17.2
50°-60°	403.3	16.2
60°-70°	336.3	13.5
70°-80°	222.8	8.9
80°-90°	59.4	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°	638.7	25.6
0°-40°	1046.6	41.9
0°-60°	1878.5	75.2
0°-90°	2497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2497.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	822	822	822	822	822	
5°	816	818	822	822	821	78
15°	783	786	791	794	796	221
25°	720	725	732	742	745	331
35°	630	636	652	666	673	394
45°	520	528	553	581	595	400
55°	389	406	450	496	515	348
65°	255	277	343	400	425	248
75°	112	156	228	276	290	121
85°	27	41	55	60	60	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	822.2	822.2	822.2	822.2	822.2
2.5°	819.1	820.7	823.8	823.8	822.2
5°	815.9	817.5	822.2	822.2	820.7
7.5°	811.2	812.8	815.9	819.1	817.5
10°	804.9	806.5	809.6	812.8	812.8
12.5°	793.9	795.5	801.8	803.3	803.3
15°	782.9	786.0	790.7	793.9	795.5
17.5°	768.7	771.8	778.1	784.4	784.4
20°	754.5	757.7	765.5	771.8	773.4
22.5°	737.2	741.9	749.8	757.7	760.8
25°	719.8	724.6	732.4	741.9	745.1
27.5°	699.4	704.1	715.1	726.1	727.7
30°	678.9	683.6	697.8	707.2	712.0
32.5°	653.7	660.0	674.2	688.3	693.1
35°	630.1	636.4	652.1	666.3	672.6
37.5°	604.9	611.2	628.5	645.8	653.7
40°	576.5	584.4	604.9	623.8	634.8
42.5°	549.7	557.6	578.1	603.3	614.3
45°	519.8	527.7	552.9	581.2	595.4
47.5°	488.3	497.8	527.7	562.3	576.5
50°	456.8	467.8	500.9	540.3	556.0
52.5°	423.7	437.9	475.7	518.2	537.1
55°	389.1	406.4	450.5	496.2	515.1
57.5°	356.0	371.7	423.7	472.5	493.0
60°	319.8	340.2	398.5	448.9	471.0
62.5°	285.1	307.2	371.7	425.3	448.9
65°	255.2	277.2	343.4	400.1	425.3
67.5°	215.8	245.7	319.8	373.3	398.5
70°	176.4	217.4	289.8	345.0	368.6
72.5°	146.5	185.9	259.9	315.0	337.1
75°	111.8	155.9	228.4	275.7	289.8
77.5°	83.5	129.2	195.3	218.9	220.5
80°	61.4	99.2	148.1	155.9	162.2
82.5°	42.5	69.3	96.1	105.5	108.7
85°	26.8	41.0	55.1	59.9	59.9
87.5°	14.2	15.8	18.9	18.9	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)