

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: P308553

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP250-W2A-U-5700K**

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: P308553
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
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-RDP-CP250-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 2297.0 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

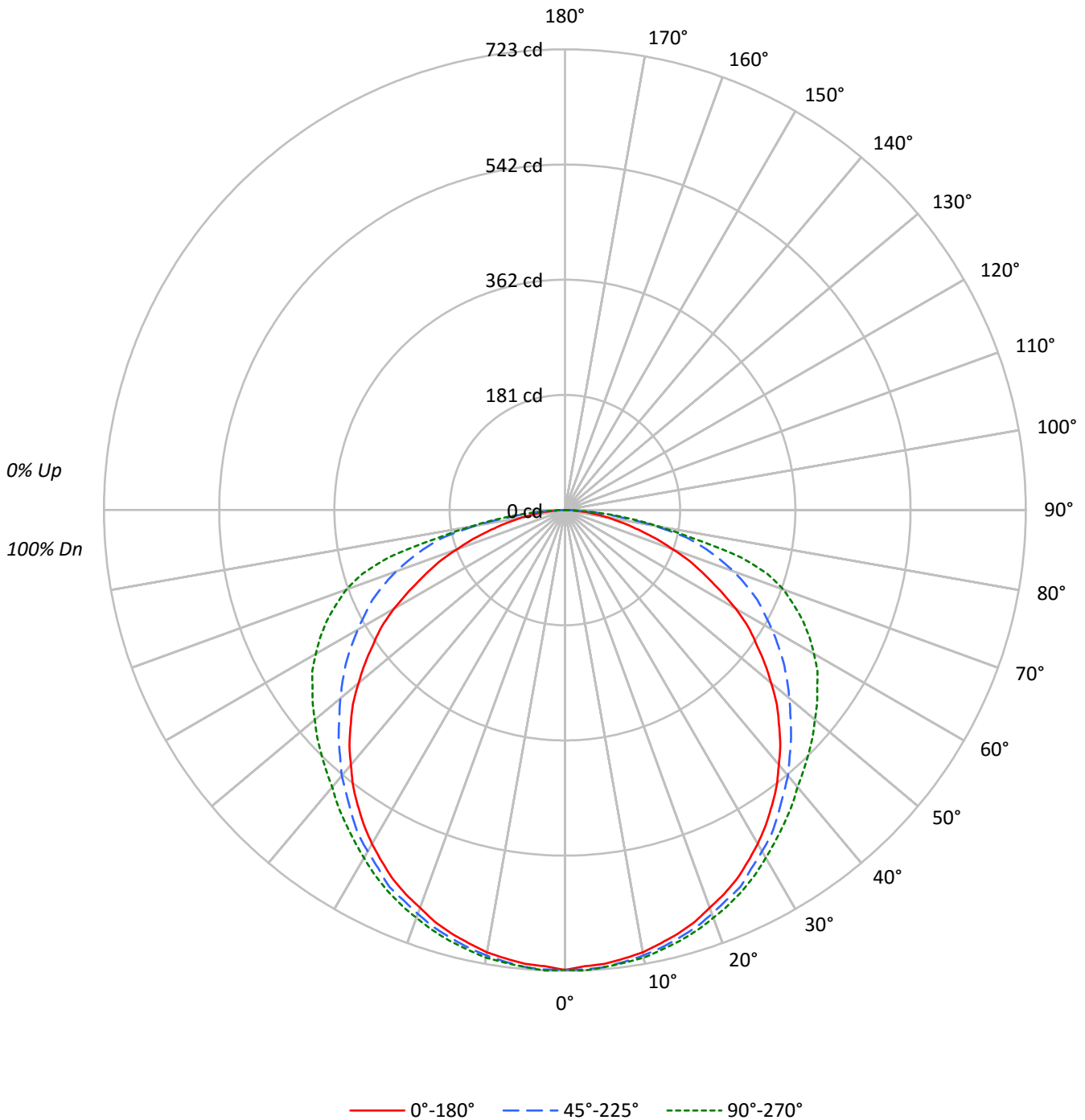
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1942	1942	1942
5°	1931	1944	1944
10°	1925	1939	1949
15°	1916	1935	1949
20°	1902	1931	1950
25°	1896	1936	1957
30°	1880	1922	1959
35°	1860	1915	1971
40°	1834	1911	1995
45°	1807	1910	2058
50°	1768	1924	2143
55°	1720	1966	2267
60°	1664	2019	2428
65°	1549	2120	2625
70°	1423	2220	2872
75°	1248	2336	2969
80°	1074	2225	2331
85°	939	1618	1775



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.3	3.0
10°-20°	196.0	8.5
20°-30°	299.0	13.0
30°-40°	365.1	15.9
40°-50°	390.3	17.0
50°-60°	376.8	16.4
60°-70°	324.3	14.1
70°-80°	219.4	9.6
80°-90°	57.9	2.5
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°	563.2	24.5
0°-40°	928.3	40.4
0°-60°	1695.3	73.8
0°-90°	2297.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2297.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	722	722	722	722	722	
5°	715	716	720	720	720	68
15°	688	689	694	698	700	194
25°	639	642	652	656	659	294
35°	566	571	583	595	600	354
45°	475	483	502	527	541	367
55°	367	378	419	461	483	329
65°	243	267	333	385	412	242
75°	120	159	225	270	286	129
85°	30	42	52	54	58	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	721.5	721.5	721.5	721.5	721.5
2.5°	716.5	718.1	721.5	721.5	723.2
5°	714.8	716.5	719.8	719.8	719.8
7.5°	709.7	711.4	714.8	716.5	716.5
10°	704.6	706.3	709.7	711.4	713.1
12.5°	696.2	697.9	702.9	706.3	706.3
15°	687.7	689.4	694.5	697.9	699.6
17.5°	677.6	681.0	686.0	689.4	691.1
20°	664.1	667.5	674.2	679.3	681.0
22.5°	652.2	655.6	662.4	667.5	670.8
25°	638.7	642.1	652.2	655.6	659.0
27.5°	621.8	625.2	633.7	640.4	645.5
30°	604.9	608.3	618.5	626.9	630.3
32.5°	586.3	591.4	603.2	610.0	615.1
35°	566.1	571.1	583.0	594.8	599.9
37.5°	545.8	550.9	562.7	577.9	584.7
40°	522.1	528.9	544.1	564.4	567.8
42.5°	500.2	508.6	522.1	545.8	554.2
45°	474.8	483.3	501.9	527.2	540.7
47.5°	451.2	459.6	479.9	510.3	527.2
50°	422.4	434.3	459.6	495.1	512.0
52.5°	395.4	405.5	439.3	478.2	498.5
55°	366.7	378.5	419.1	461.3	483.3
57.5°	341.3	351.5	397.1	444.4	469.8
60°	309.2	322.7	375.1	425.8	451.2
62.5°	275.4	295.7	353.2	405.5	432.6
65°	243.3	267.0	332.9	385.3	412.3
67.5°	214.6	239.9	307.5	363.3	388.6
70°	180.8	212.9	282.2	336.3	365.0
72.5°	150.4	185.9	253.5	307.5	332.9
75°	120.0	158.8	224.7	270.4	285.6
77.5°	92.9	130.1	192.6	206.2	207.8
80°	69.3	103.1	143.6	145.3	150.4
82.5°	47.3	72.7	92.9	101.4	103.1
85°	30.4	42.2	52.4	54.1	57.5
87.5°	13.5	15.2	18.6	16.9	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)