

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: P312567

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-HRP-CA08-W2A-U-4000K**

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: P312567
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: 22FCZ2-44HE-UNV-L83050-HRP-CA08-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4000K 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: 3364.0 lumens
Efficiency: N/A
Efficacy: 88.3 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

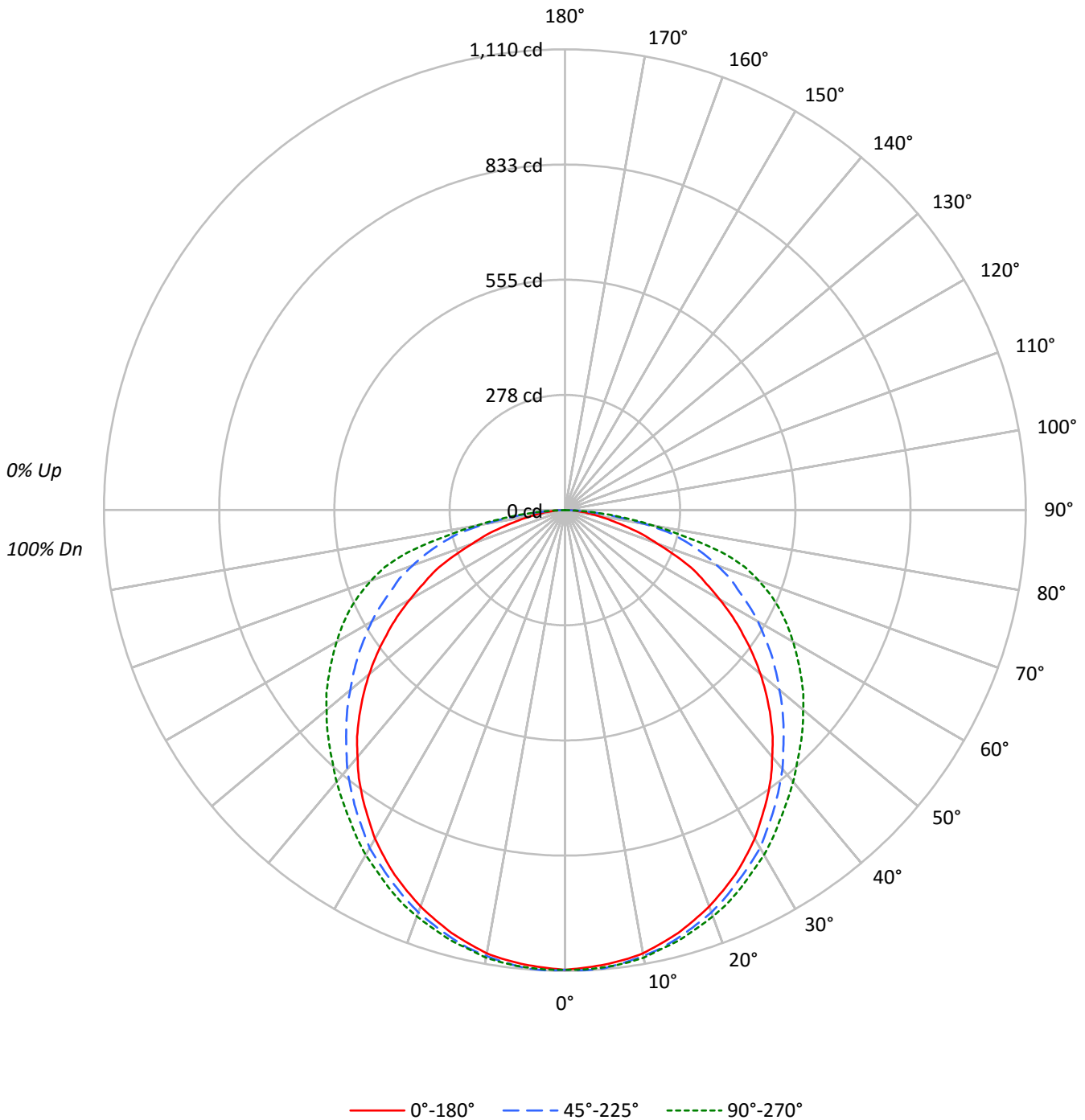
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2981	2981	2981
5°	2969	2992	2987
10°	2963	2981	2992
15°	2938	2968	2986
20°	2911	2953	2984
25°	2879	2930	2980
30°	2842	2921	2980
35°	2788	2886	2977
40°	2728	2863	3004
45°	2665	2835	3052
50°	2576	2825	3136
55°	2459	2847	3255
60°	2319	2890	3415
65°	2189	2946	3649
70°	1870	3072	3907
75°	1567	3199	4060
80°	1283	3092	3388
85°	1115	2294	2489



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.0	3.1
10°-20°	300.3	8.9
20°-30°	455.1	13.5
30°-40°	549.6	16.3
40°-50°	577.5	17.2
50°-60°	543.3	16.2
60°-70°	453.0	13.5
70°-80°	300.2	8.9
80°-90°	80.0	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°	860.4	25.6
0°-40°	1410.0	41.9
0°-60°	2530.8	75.2
0°-90°	3364.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3364.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1108	1108	1108	1108	1108	
5°	1099	1101	1108	1108	1106	104
15°	1055	1059	1065	1070	1072	297
25°	970	976	987	1000	1004	447
35°	849	857	878	898	906	531
45°	700	711	745	783	802	539
55°	524	548	607	668	694	469
65°	344	374	463	539	573	335
75°	151	210	308	371	390	164
85°	36	55	74	81	81	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1107.7	1107.7	1107.7	1107.7	1107.7
2.5°	1103.5	1105.6	1109.8	1109.8	1107.7
5°	1099.2	1101.4	1107.7	1107.7	1105.6
7.5°	1092.9	1095.0	1099.2	1103.5	1101.4
10°	1084.4	1086.5	1090.8	1095.0	1095.0
12.5°	1069.5	1071.7	1080.1	1082.3	1082.3
15°	1054.7	1058.9	1065.3	1069.5	1071.7
17.5°	1035.6	1039.8	1048.3	1056.8	1056.8
20°	1016.5	1020.7	1031.3	1039.8	1041.9
22.5°	993.1	999.5	1010.1	1020.7	1025.0
25°	969.8	976.2	986.8	999.5	1003.7
27.5°	942.2	948.6	963.4	978.3	980.4
30°	914.6	921.0	940.1	952.8	959.2
32.5°	880.7	889.2	908.3	927.4	933.7
35°	848.8	857.3	878.5	897.6	906.1
37.5°	814.9	823.4	846.7	870.1	880.7
40°	776.7	787.3	814.9	840.3	855.2
42.5°	740.6	751.2	778.8	812.8	827.6
45°	700.3	710.9	744.9	783.0	802.1
47.5°	657.8	670.6	710.9	757.6	776.7
50°	615.4	630.3	674.8	727.9	749.1
52.5°	570.8	589.9	640.9	698.2	723.6
55°	524.2	547.5	606.9	668.5	693.9
57.5°	479.6	500.8	570.8	636.6	664.2
60°	430.8	458.4	536.9	604.8	634.5
62.5°	384.1	413.8	500.8	573.0	604.8
65°	343.8	373.5	462.6	539.0	573.0
67.5°	290.7	331.0	430.8	502.9	536.9
70°	237.7	292.8	390.5	464.7	496.6
72.5°	197.4	250.4	350.1	424.4	454.1
75°	150.7	210.1	307.7	371.4	390.5
77.5°	112.5	174.0	263.1	295.0	297.1
80°	82.8	133.7	199.5	210.1	218.6
82.5°	57.3	93.4	129.4	142.2	146.4
85°	36.1	55.2	74.3	80.6	80.6
87.5°	19.1	21.2	25.5	25.5	25.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)