

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: P312850

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-CP125-W2A-U-3000K**

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: P312850
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
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-L83050-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" 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: 3275.0 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

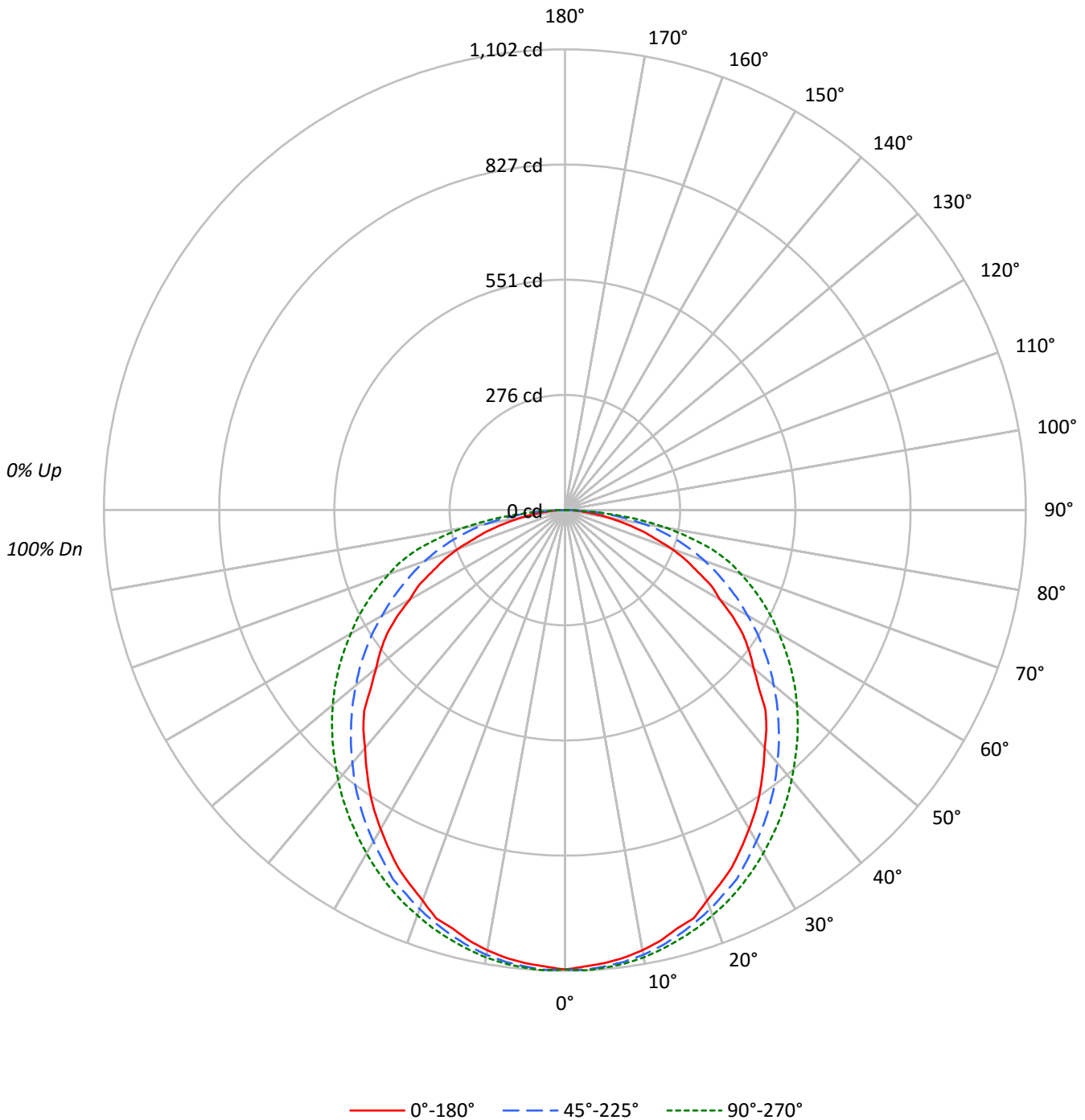
Input Watts (W): 32.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2957	2957	2957
5°	2938	2960	2968
10°	2921	2951	2968
15°	2886	2930	2961
20°	2846	2909	2954
25°	2802	2890	2951
30°	2737	2844	2947
35°	2678	2811	2951
40°	2610	2775	2962
45°	2583	2750	2989
50°	2467	2730	3032
55°	2441	2721	3096
60°	2303	2716	3180
65°	2236	2735	3324
70°	2146	2799	3527
75°	1956	2884	3797
80°	1677	2988	3839
85°	1355	2856	3291



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.0	3.2
10°-20°	296.6	9.1
20°-30°	446.4	13.6
30°-40°	535.8	16.4
40°-50°	560.0	17.1
50°-60°	521.9	15.9
60°-70°	428.0	13.1
70°-80°	288.4	8.8
80°-90°	93.9	2.9
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°	847.0	25.9
0°-40°	1382.8	42.2
0°-60°	2464.6	75.3
0°-90°	3275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1099	1099	1099	1099	1099	
5°	1088	1091	1096	1097	1099	103
15°	1036	1042	1052	1061	1063	293
25°	944	950	973	988	994	434
35°	815	826	856	886	898	510
45°	679	683	723	766	785	518
55°	520	530	580	635	660	461
65°	351	367	430	492	522	349
75°	188	208	277	340	365	198
85°	44	63	92	108	107	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1098.8	1098.8	1098.8	1098.8	1098.8
2.5°	1092.5	1095.7	1100.4	1101.9	1101.9
5°	1087.8	1091.0	1095.7	1097.2	1098.8
7.5°	1080.0	1083.1	1089.4	1092.5	1094.1
10°	1069.0	1072.1	1080.0	1084.7	1086.3
12.5°	1054.9	1058.0	1067.4	1073.7	1075.3
15°	1036.1	1042.4	1051.8	1061.2	1062.7
17.5°	1023.6	1022.0	1034.5	1045.5	1048.6
20°	993.8	1001.6	1015.7	1028.3	1031.4
22.5°	968.7	975.0	993.8	1007.9	1014.1
25°	943.6	949.9	973.4	987.5	993.8
27.5°	912.3	921.7	943.6	964.0	971.8
30°	880.9	890.3	915.4	938.9	948.3
32.5°	849.6	860.5	887.2	912.3	923.2
35°	815.1	826.1	855.8	885.6	898.2
37.5°	779.0	793.1	824.5	857.4	871.5
40°	743.0	757.1	790.0	827.6	843.3
42.5°	713.2	719.5	757.1	797.8	813.5
45°	678.7	683.4	722.6	766.5	785.3
47.5°	628.6	645.8	688.1	736.7	755.5
50°	589.4	608.2	652.1	703.8	724.2
52.5°	556.4	569.0	617.6	669.3	692.8
55°	520.4	529.8	580.0	634.8	659.9
57.5°	476.5	493.8	543.9	600.3	625.4
60°	427.9	449.9	504.7	565.9	590.9
62.5°	396.6	409.1	468.7	529.8	558.0
65°	351.1	366.8	429.5	492.2	522.0
67.5°	313.5	329.2	393.4	456.1	485.9
70°	272.7	288.4	355.8	418.5	448.3
72.5°	225.7	247.7	318.2	380.9	412.2
75°	188.1	208.5	277.4	340.1	365.2
77.5°	145.8	172.4	236.7	288.4	307.2
80°	108.2	134.8	192.8	230.4	247.7
82.5°	73.7	100.3	144.2	172.4	181.8
85°	43.9	62.7	92.5	108.2	106.6
87.5°	20.4	26.6	37.6	37.6	36.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)