

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: P308800

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP125-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: P308800
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-L82765-CP125-W2A-U-3500K
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: 3385.0 lumens
Efficiency: N/A
Efficacy: 103.8 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

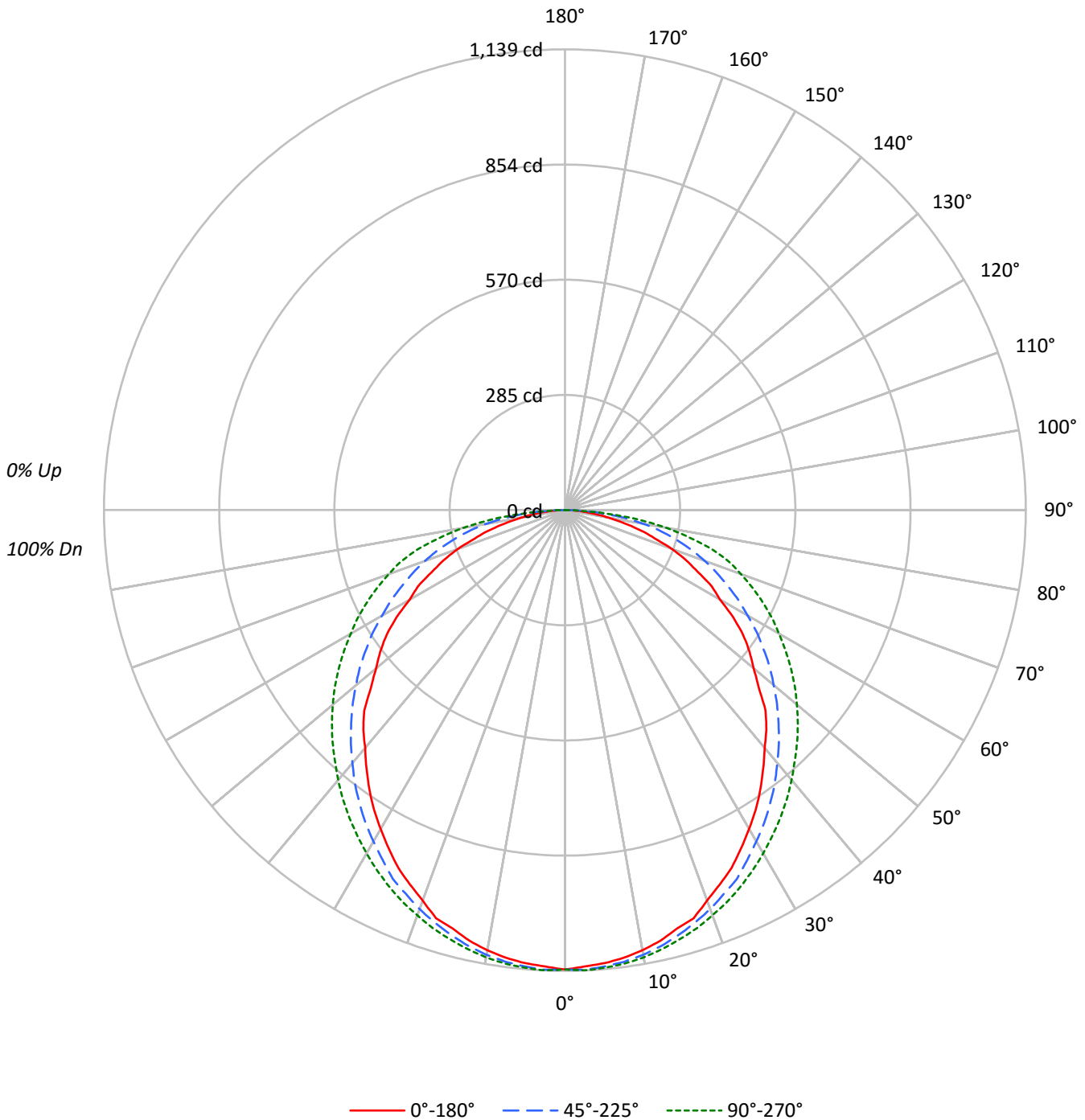
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3056	3056	3056
5°	3037	3059	3068
10°	3019	3050	3068
15°	2983	3029	3060
20°	2941	3006	3053
25°	2896	2987	3050
30°	2829	2940	3046
35°	2768	2906	3050
40°	2697	2868	3062
45°	2670	2842	3089
50°	2550	2822	3134
55°	2524	2812	3200
60°	2380	2808	3287
65°	2311	2826	3435
70°	2218	2894	3646
75°	2021	2982	3925
80°	1733	3088	3967
85°	1402	2952	3402



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	3.2
10°-20°	306.6	9.1
20°-30°	461.4	13.6
30°-40°	553.8	16.4
40°-50°	578.8	17.1
50°-60°	539.4	15.9
60°-70°	442.4	13.1
70°-80°	298.1	8.8
80°-90°	97.1	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°	875.4	25.9
0°-40°	1429.2	42.2
0°-60°	2547.4	75.3
0°-90°	3385.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3385.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1136	1136	1136	1136	1136	
5°	1124	1128	1132	1134	1136	107
15°	1071	1077	1087	1097	1098	303
25°	975	982	1006	1021	1027	448
35°	842	854	885	915	928	527
45°	702	706	747	792	812	536
55°	538	548	599	656	682	477
65°	363	379	444	509	540	361
75°	194	216	287	352	378	204
85°	45	65	96	112	110	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1135.7	1135.7	1135.7	1135.7	1135.7
2.5°	1129.2	1132.5	1137.3	1138.9	1138.9
5°	1124.4	1127.6	1132.5	1134.1	1135.7
7.5°	1116.3	1119.5	1126.0	1129.2	1130.8
10°	1104.9	1108.2	1116.3	1121.1	1122.7
12.5°	1090.3	1093.6	1103.3	1109.8	1111.4
15°	1070.9	1077.4	1087.1	1096.8	1098.4
17.5°	1057.9	1056.3	1069.3	1080.6	1083.9
20°	1027.1	1035.2	1049.8	1062.8	1066.0
22.5°	1001.2	1007.7	1027.1	1041.7	1048.2
25°	975.3	981.8	1006.1	1020.7	1027.1
27.5°	942.9	952.6	975.3	996.4	1004.5
30°	910.5	920.2	946.1	970.4	980.2
32.5°	878.1	889.4	917.0	942.9	954.2
35°	842.5	853.8	884.6	915.4	928.3
37.5°	805.2	819.8	852.2	886.2	900.8
40°	767.9	782.5	816.5	855.4	871.6
42.5°	737.1	743.6	782.5	824.6	840.8
45°	701.5	706.4	746.9	792.2	811.7
47.5°	649.7	667.5	711.2	761.5	780.9
50°	609.2	628.6	674.0	727.4	748.5
52.5°	575.1	588.1	638.3	691.8	716.1
55°	537.9	547.6	599.4	656.1	682.1
57.5°	492.5	510.3	562.2	620.5	646.4
60°	442.3	465.0	521.7	584.9	610.8
62.5°	409.9	422.8	484.4	547.6	576.8
65°	362.9	379.1	443.9	508.7	539.5
67.5°	324.0	340.2	406.6	471.5	502.2
70°	281.9	298.1	367.8	432.6	463.4
72.5°	233.3	256.0	328.9	393.7	426.1
75°	194.4	215.5	286.8	351.6	377.5
77.5°	150.7	178.2	244.6	298.1	317.5
80°	111.8	139.3	199.3	238.2	256.0
82.5°	76.1	103.7	149.1	178.2	187.9
85°	45.4	64.8	95.6	111.8	110.2
87.5°	21.1	27.5	38.9	38.9	37.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)