

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: P312848

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-CA125-W2A-U-4500K**

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: P312848
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-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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: 3747.0 lumens
Efficiency: N/A
Efficacy: 110.2 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

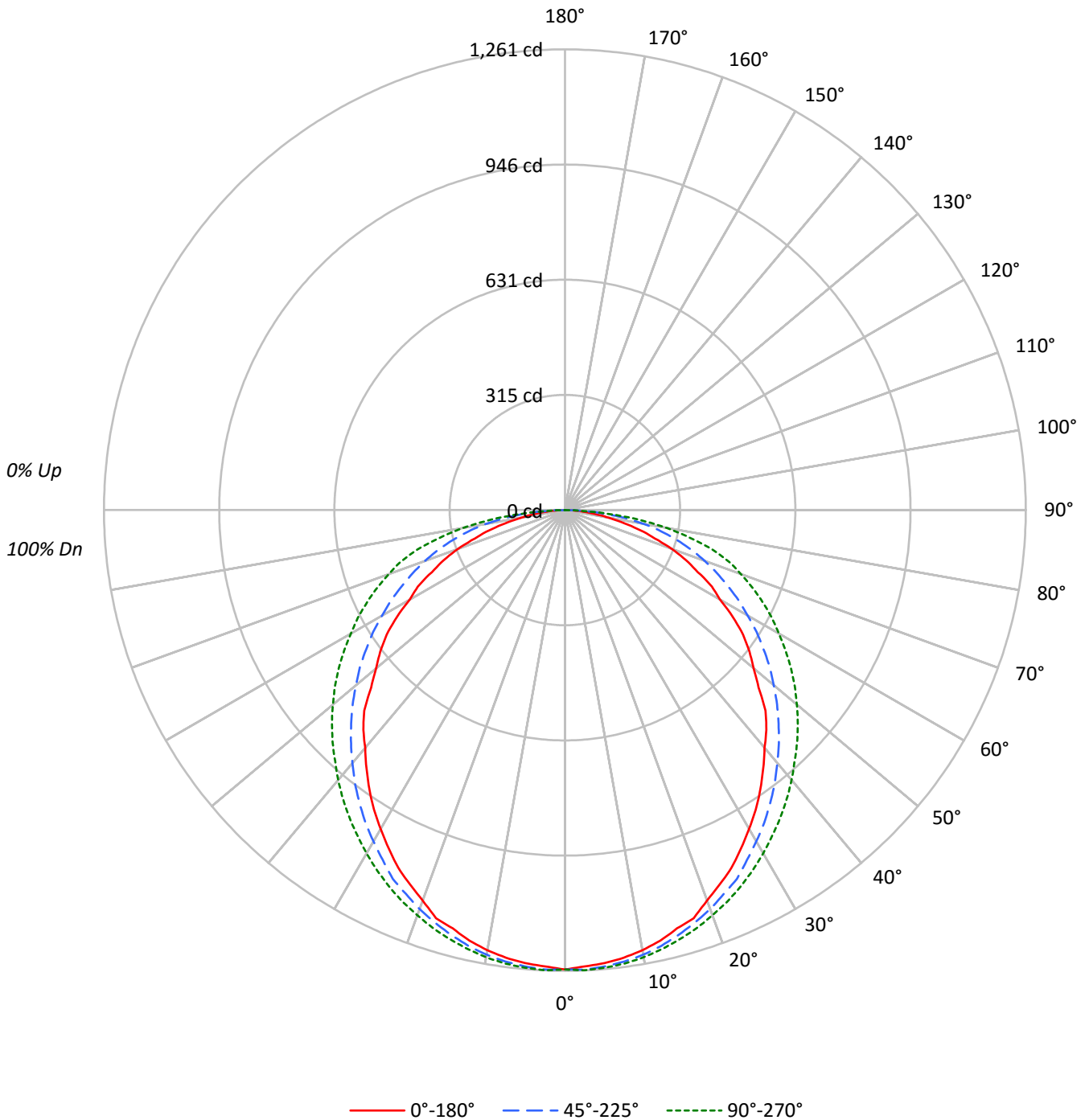
Input Watts (W): 34
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3383	3383	3383
5°	3362	3386	3396
10°	3342	3376	3396
15°	3302	3352	3387
20°	3256	3328	3379
25°	3206	3307	3376
30°	3132	3254	3371
35°	3064	3217	3376
40°	2986	3175	3389
45°	2955	3146	3419
50°	2823	3123	3468
55°	2793	3113	3542
60°	2635	3108	3639
65°	2558	3129	3803
70°	2455	3203	4035
75°	2237	3300	4345
80°	1917	3419	4392
85°	1550	3267	3764



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	3.2
10°-20°	339.4	9.1
20°-30°	510.7	13.6
30°-40°	613.0	16.4
40°-50°	640.7	17.1
50°-60°	597.1	15.9
60°-70°	489.7	13.1
70°-80°	330.0	8.8
80°-90°	107.5	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°	969.1	25.9
0°-40°	1582.0	42.2
0°-60°	2819.8	75.3
0°-90°	3747.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3747.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1257	1257	1257	1257	1257	
5°	1245	1248	1254	1255	1257	118
15°	1185	1193	1203	1214	1216	335
25°	1080	1087	1114	1130	1137	496
35°	933	945	979	1013	1028	583
45°	776	782	827	877	898	593
55°	595	606	664	726	755	528
65°	402	420	491	563	597	400
75°	215	238	317	389	418	226
85°	50	72	106	124	122	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1257.2	1257.2	1257.2	1257.2	1257.2
2.5°	1250.0	1253.6	1258.9	1260.7	1260.7
5°	1244.6	1248.2	1253.6	1255.4	1257.2
7.5°	1235.6	1239.2	1246.4	1250.0	1251.8
10°	1223.1	1226.7	1235.6	1241.0	1242.8
12.5°	1206.9	1210.5	1221.3	1228.5	1230.2
15°	1185.4	1192.6	1203.3	1214.1	1215.9
17.5°	1171.1	1169.3	1183.6	1196.2	1199.8
20°	1137.0	1146.0	1162.1	1176.4	1180.0
22.5°	1108.3	1115.5	1137.0	1153.1	1160.3
25°	1079.6	1086.8	1113.7	1129.8	1137.0
27.5°	1043.7	1054.5	1079.6	1102.9	1111.9
30°	1007.9	1018.6	1047.3	1074.2	1085.0
32.5°	972.0	984.6	1015.0	1043.7	1056.3
35°	932.6	945.1	979.2	1013.3	1027.6
37.5°	891.3	907.4	943.3	981.0	997.1
40°	850.1	866.2	903.9	946.9	964.8
42.5°	816.0	823.2	866.2	912.8	930.8
45°	776.5	781.9	826.7	877.0	898.5
47.5°	719.1	738.9	787.3	842.9	864.4
50°	674.3	695.8	746.0	805.2	828.5
52.5°	636.6	651.0	706.6	765.8	792.7
55°	595.4	606.2	663.5	726.3	755.0
57.5°	545.2	564.9	622.3	686.9	715.6
60°	489.6	514.7	577.5	647.4	676.1
62.5°	453.7	468.1	536.2	606.2	638.4
65°	401.7	419.6	491.4	563.1	597.2
67.5°	358.7	376.6	450.1	521.9	555.9
70°	312.0	330.0	407.1	478.8	512.9
72.5°	258.2	283.4	364.1	435.8	471.7
75°	215.2	238.5	317.4	389.2	417.9
77.5°	166.8	197.3	270.8	330.0	351.5
80°	123.7	154.2	220.6	263.6	283.4
82.5°	84.3	114.8	165.0	197.3	208.0
85°	50.2	71.7	105.8	123.7	121.9
87.5°	23.3	30.5	43.0	43.0	41.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)