

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: P308806

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP125-W2A-U-6500K**

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: P308806
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-6500K
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: 3622.0 lumens
Efficiency: N/A
Efficacy: 107.2 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

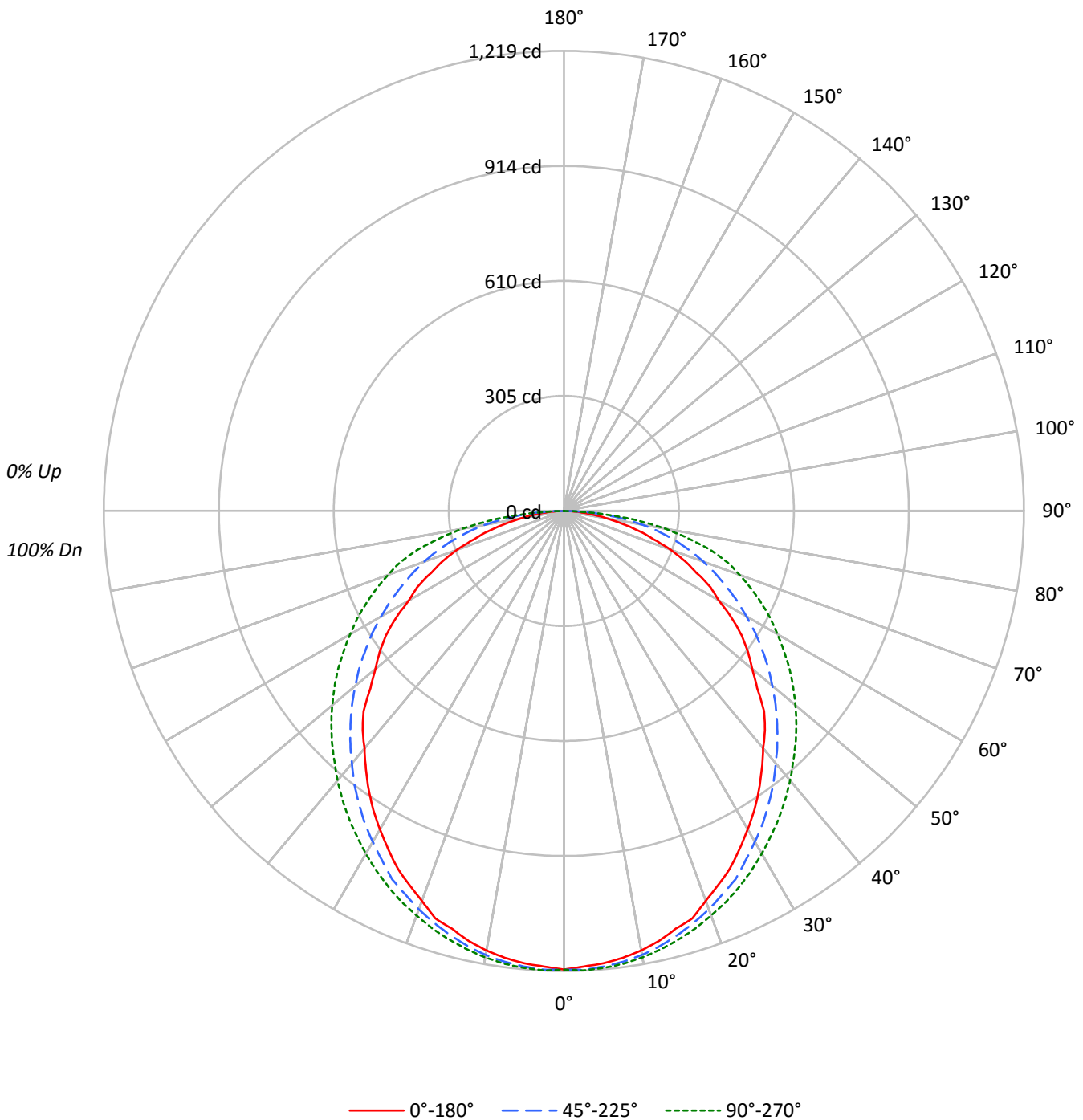
Input Watts (W): 33.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3270	3270	3270
5°	3250	3273	3283
10°	3231	3264	3283
15°	3192	3241	3274
20°	3147	3217	3267
25°	3099	3196	3263
30°	3027	3146	3259
35°	2961	3109	3263
40°	2886	3069	3276
45°	2856	3041	3305
50°	2729	3019	3353
55°	2700	3009	3424
60°	2547	3004	3517
65°	2472	3025	3676
70°	2373	3096	3901
75°	2163	3190	4199
80°	1853	3304	4245
85°	1497	3159	3640



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.0	3.2
10°-20°	328.0	9.1
20°-30°	493.7	13.6
30°-40°	592.5	16.4
40°-50°	619.3	17.1
50°-60°	577.2	15.9
60°-70°	473.4	13.1
70°-80°	319.0	8.8
80°-90°	103.9	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°	936.7	25.9
0°-40°	1529.3	42.2
0°-60°	2725.7	75.3
0°-90°	3622.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3622.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1215	1215	1215	1215	1215	
5°	1203	1206	1212	1214	1215	114
15°	1146	1153	1163	1174	1175	324
25°	1044	1050	1076	1092	1099	480
35°	901	914	946	980	993	564
45°	751	756	799	848	868	573
55°	576	586	641	702	730	510
65°	388	406	475	544	577	386
75°	208	231	307	376	404	219
85°	48	69	102	120	118	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1215.2	1215.2	1215.2	1215.2	1215.2
2.5°	1208.3	1211.7	1216.9	1218.7	1218.7
5°	1203.1	1206.5	1211.7	1213.5	1215.2
7.5°	1194.4	1197.9	1204.8	1208.3	1210.0
10°	1182.3	1185.7	1194.4	1199.6	1201.3
12.5°	1166.7	1170.1	1180.5	1187.5	1189.2
15°	1145.9	1152.8	1163.2	1173.6	1175.3
17.5°	1132.0	1130.3	1144.1	1156.3	1159.7
20°	1099.1	1107.7	1123.3	1137.2	1140.7
22.5°	1071.3	1078.3	1099.1	1114.7	1121.6
25°	1043.6	1050.5	1076.5	1092.1	1099.1
27.5°	1008.9	1019.3	1043.6	1066.1	1074.8
30°	974.2	984.7	1012.4	1038.4	1048.8
32.5°	939.6	951.7	981.2	1008.9	1021.1
35°	901.4	913.6	946.5	979.5	993.3
37.5°	861.6	877.2	911.8	948.2	963.8
40°	821.7	837.3	873.7	915.3	932.6
42.5°	788.8	795.7	837.3	882.4	899.7
45°	750.6	755.8	799.2	847.7	868.5
47.5°	695.1	714.2	761.0	814.8	835.6
50°	651.8	672.6	721.2	778.4	800.9
52.5°	615.4	629.3	683.0	740.2	766.2
55°	575.5	585.9	641.4	702.1	729.8
57.5°	527.0	546.1	601.5	663.9	691.7
60°	473.3	497.5	558.2	625.8	653.5
62.5°	438.6	452.5	518.3	585.9	617.1
65°	388.3	405.6	475.0	544.3	577.3
67.5°	346.7	364.0	435.1	504.5	537.4
70°	301.6	319.0	393.5	462.9	495.8
72.5°	249.6	273.9	351.9	421.3	455.9
75°	208.0	230.6	306.8	376.2	403.9
77.5°	161.2	190.7	261.8	319.0	339.8
80°	119.6	149.1	213.2	254.8	273.9
82.5°	81.5	110.9	159.5	190.7	201.1
85°	48.5	69.3	102.3	119.6	117.9
87.5°	22.5	29.5	41.6	41.6	39.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)