

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: P309067

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-CA125-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: P309067
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
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-S-CA125-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC 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: 3896.0 lumens
Efficiency: N/A
Efficacy: 115.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

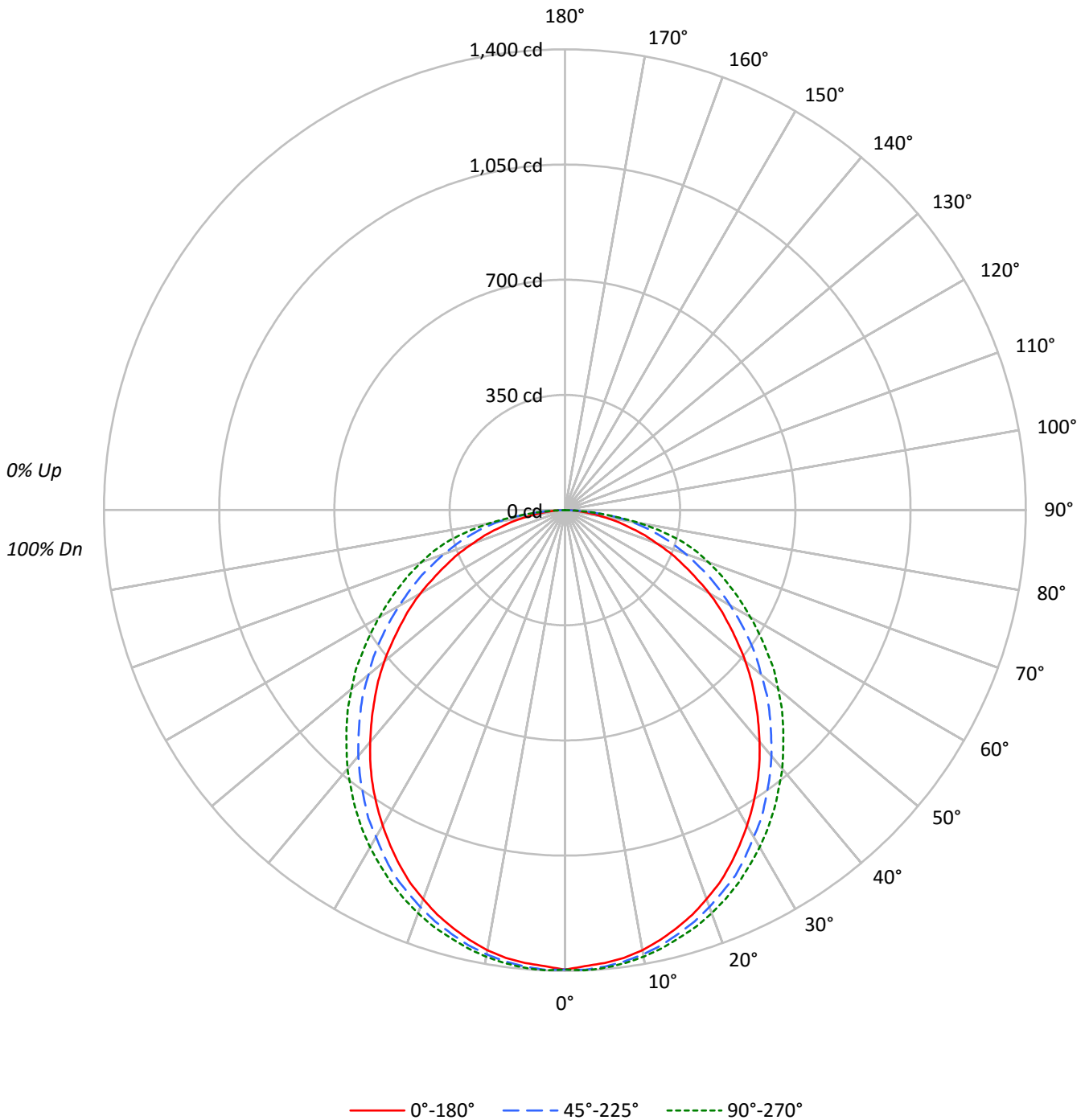
Input Watts (W): 33.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3757	3757	3757
5°	3732	3761	3771
10°	3710	3745	3765
15°	3662	3712	3748
20°	3602	3675	3733
25°	3530	3638	3708
30°	3440	3564	3677
35°	3344	3499	3642
40°	3231	3429	3608
45°	3113	3348	3570
50°	2998	3257	3539
55°	2857	3198	3514
60°	2730	3121	3503
65°	2546	3102	3542
70°	2345	3075	3647
75°	2117	3118	3837
80°	1832	3211	3606
85°	1516	2695	2695



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.0	3.4
10°-20°	375.7	9.6
20°-30°	562.2	14.4
30°-40°	665.7	17.1
40°-50°	678.5	17.4
50°-60°	608.1	15.6
60°-70°	476.1	12.2
70°-80°	307.0	7.9
80°-90°	90.7	2.3
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°	1069.9	27.5
0°-40°	1735.6	44.5
0°-60°	3022.2	77.6
0°-90°	3896.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3896.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1396	1396	1396	1396	1396	
5°	1382	1385	1392	1394	1396	131
15°	1314	1322	1332	1343	1345	371
25°	1189	1200	1225	1242	1249	547
35°	1018	1031	1065	1098	1109	636
45°	818	836	880	925	938	632
55°	609	629	682	729	749	546
65°	400	424	487	534	556	397
75°	204	234	300	351	369	218
85°	49	67	87	87	87	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1396.1	1396.1	1396.1	1396.1	1396.1
2.5°	1387.0	1390.6	1397.9	1399.7	1399.7
5°	1381.5	1385.2	1392.4	1394.2	1396.1
7.5°	1372.4	1374.2	1383.3	1387.0	1388.8
10°	1357.9	1361.5	1370.6	1376.1	1377.9
12.5°	1337.9	1343.3	1354.2	1361.5	1363.3
15°	1314.3	1321.5	1332.4	1343.3	1345.2
17.5°	1288.8	1296.1	1310.6	1323.3	1327.0
20°	1257.9	1267.0	1283.4	1297.9	1303.4
22.5°	1227.0	1234.3	1254.3	1272.4	1277.9
25°	1188.8	1199.7	1225.2	1241.5	1248.8
27.5°	1148.8	1161.6	1187.0	1208.8	1216.1
30°	1107.0	1119.8	1147.0	1174.3	1183.4
32.5°	1063.4	1077.9	1110.7	1137.9	1147.0
35°	1018.0	1030.7	1065.2	1097.9	1108.8
37.5°	970.7	981.6	1021.6	1056.1	1067.0
40°	919.8	934.3	976.2	1016.1	1027.0
42.5°	868.9	885.3	927.1	970.7	981.6
45°	818.0	836.2	879.8	925.3	938.0
47.5°	768.9	783.5	832.5	876.2	894.3
50°	716.2	730.7	778.0	827.1	845.3
52.5°	661.7	681.7	732.6	779.8	801.6
55°	609.0	629.0	681.7	728.9	748.9
57.5°	559.9	576.2	630.8	679.9	699.8
60°	507.2	521.7	579.9	632.6	650.8
62.5°	450.8	472.6	532.6	581.7	603.5
65°	399.9	423.5	487.2	534.4	556.2
67.5°	352.7	374.5	436.3	487.2	510.8
70°	298.1	327.2	390.8	441.7	463.5
72.5°	254.5	279.9	345.4	396.3	419.9
75°	203.6	234.5	299.9	350.8	369.0
77.5°	161.8	192.7	254.5	294.5	303.6
80°	118.2	149.1	207.2	227.2	232.7
82.5°	80.0	109.1	149.1	154.5	156.3
85°	49.1	67.3	87.3	87.3	87.3
87.5°	23.6	27.3	30.9	29.1	29.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)