

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: P313300

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-HRP-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: P313300
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-55HE-UNV-L83050-HRP-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (336) 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: 3639.0 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

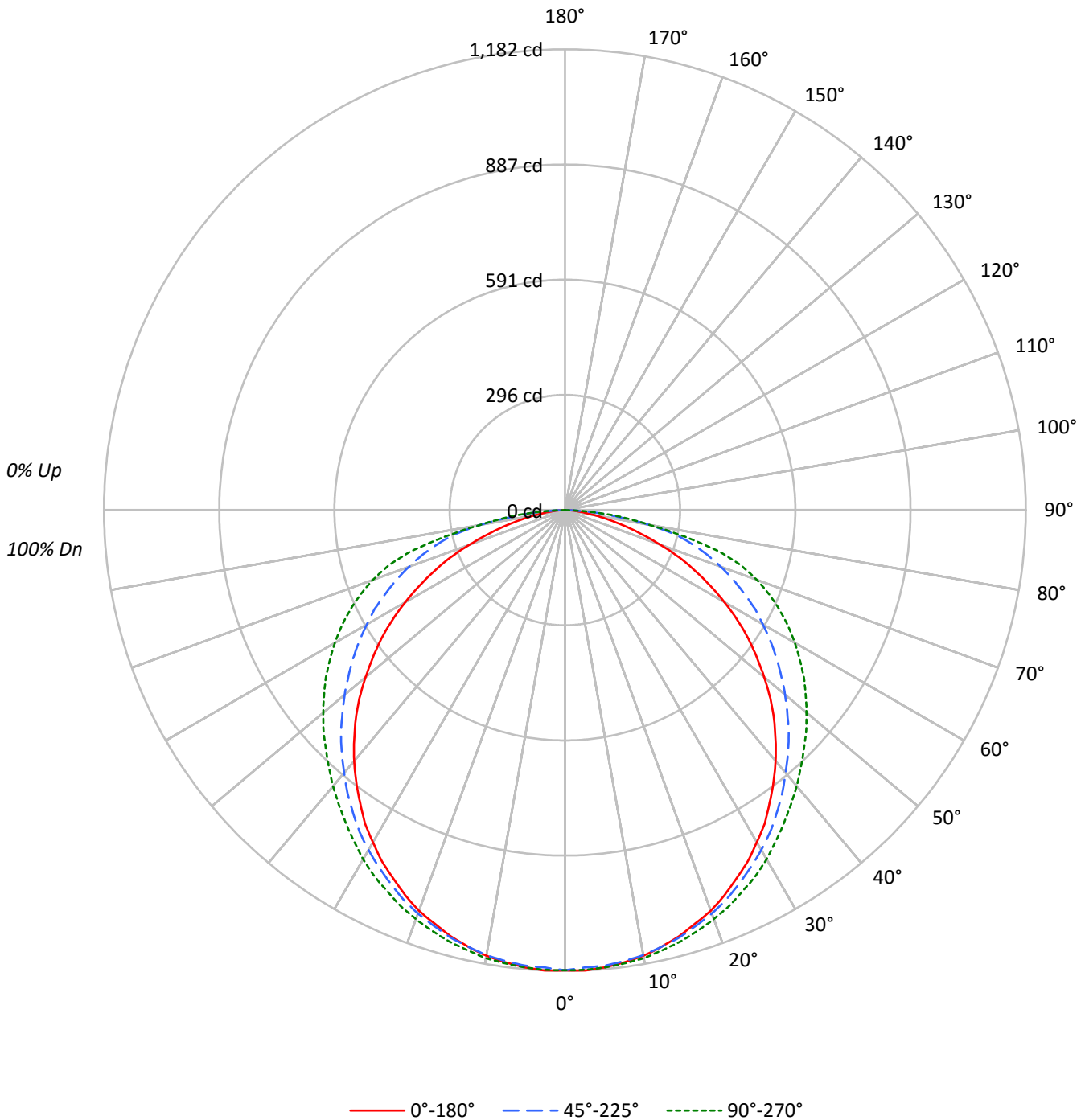
Input Watts (W): 43
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	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	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1589	1589	1589
5°	1591	1584	1591
10°	1586	1584	1594
15°	1577	1581	1596
20°	1566	1577	1599
25°	1547	1570	1601
30°	1529	1565	1607
35°	1504	1556	1609
40°	1477	1547	1624
45°	1444	1545	1649
50°	1397	1544	1693
55°	1347	1555	1755
60°	1271	1578	1833
65°	1174	1615	1935
70°	1025	1672	2062
75°	832	1758	2130
80°	614	1723	1723
85°	471	1271	1434



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	3.1
10°-20°	321.2	8.8
20°-30°	489.0	13.4
30°-40°	593.7	16.3
40°-50°	627.3	17.2
50°-60°	591.9	16.3
60°-70°	492.1	13.5
70°-80°	323.8	8.9
80°-90°	88.3	2.4
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°	922.0	25.3
0°-40°	1515.7	41.7
0°-60°	2734.8	75.2
0°-90°	3639.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3639.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1181	1181	1181	1181	1181	
5°	1178	1178	1173	1178	1178	112
15°	1132	1133	1135	1146	1146	319
25°	1042	1048	1057	1076	1079	481
35°	916	926	948	972	980	573
45°	759	774	812	852	867	584
55°	574	599	663	725	748	512
65°	369	411	507	582	608	364
75°	160	233	338	401	410	172
85°	30	67	82	91	93	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1180.7	1180.7	1180.7	1180.7	1180.7
2.5°	1182.2	1180.7	1174.6	1180.7	1180.7
5°	1177.6	1177.6	1173.1	1177.6	1177.6
7.5°	1170.0	1170.0	1167.0	1173.1	1173.1
10°	1160.9	1160.9	1159.3	1167.0	1167.0
12.5°	1147.2	1148.7	1147.2	1156.3	1156.3
15°	1131.9	1133.4	1135.0	1145.6	1145.6
17.5°	1112.1	1115.2	1118.2	1130.4	1131.9
20°	1093.8	1095.4	1101.5	1115.2	1116.7
22.5°	1069.5	1074.0	1081.7	1095.4	1099.9
25°	1042.0	1048.1	1057.3	1075.6	1078.6
27.5°	1016.1	1020.7	1032.9	1052.7	1058.8
30°	984.2	991.8	1007.0	1026.8	1034.4
32.5°	953.7	961.3	979.6	1000.9	1007.0
35°	915.6	926.3	947.6	972.0	979.6
37.5°	879.0	889.7	915.6	943.0	952.2
40°	840.9	853.1	880.6	912.5	924.7
42.5°	799.8	816.6	847.0	882.1	895.8
45°	758.7	773.9	812.0	851.6	866.8
47.5°	714.5	732.8	773.9	821.1	839.4
50°	667.3	690.1	737.4	789.1	809.0
52.5°	620.0	645.9	699.3	757.2	778.5
55°	574.3	598.7	662.7	725.2	748.0
57.5°	524.1	554.5	624.6	691.6	714.5
60°	472.3	505.8	586.5	656.6	681.0
62.5°	420.5	458.6	550.0	620.0	645.9
65°	368.7	411.3	507.3	582.0	607.9
67.5°	318.4	365.6	467.7	542.3	568.2
70°	260.5	319.9	425.0	498.2	524.1
72.5°	207.2	275.7	383.9	452.5	475.3
75°	160.0	233.1	338.2	400.7	409.8
77.5°	117.3	190.4	291.0	312.3	313.8
80°	79.2	152.3	222.4	219.4	222.4
82.5°	51.8	114.3	140.2	156.9	158.4
85°	30.5	67.0	82.3	91.4	92.9
87.5°	15.2	22.9	28.9	30.5	33.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)