

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: P309340

Luminaire Tested: **24FCZ2-40HE-UNV-L82765-HRP-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: P309340  
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: 24FCZ2-40HE-UNV-L82765-HRP-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 3500K 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**

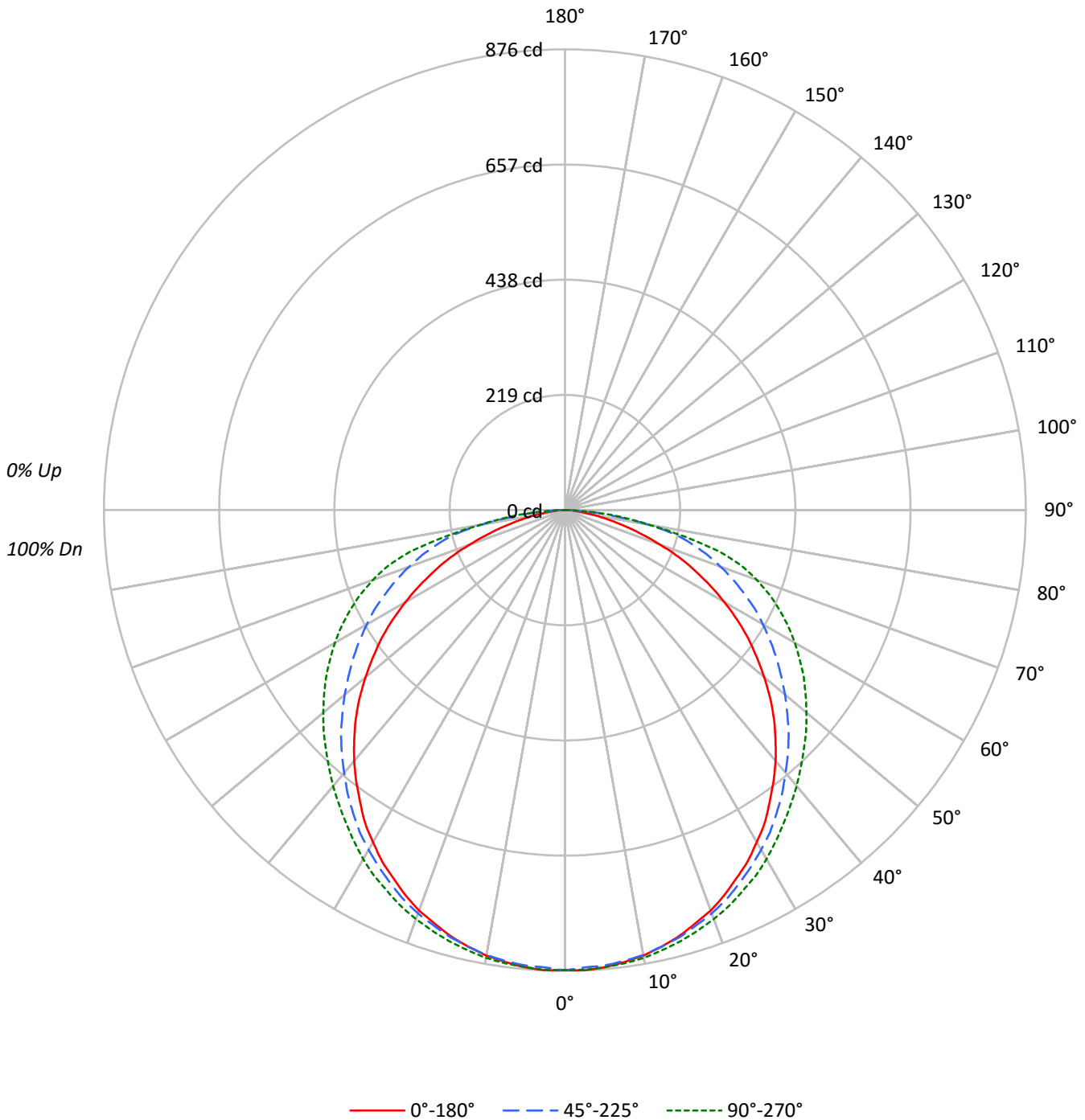
Lumens per Lamp: N/A  
Luminaire Lumens: 2696.0 lumens  
Efficiency: N/A  
Efficacy: 88.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 30.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1177	1177	1177
5°	1178	1174	1178
10°	1175	1173	1181
15°	1168	1171	1182
20°	1160	1168	1185
25°	1146	1163	1186
30°	1133	1159	1191
35°	1114	1153	1192
40°	1094	1146	1203
45°	1070	1145	1222
50°	1035	1144	1254
55°	998	1152	1300
60°	942	1169	1358
65°	869	1196	1434
70°	759	1239	1528
75°	616	1303	1578
80°	455	1277	1277
85°	349	940	1062



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.9	3.1
10°-20°	238.0	8.8
20°-30°	362.2	13.4
30°-40°	439.9	16.3
40°-50°	464.7	17.2
50°-60°	438.5	16.3
60°-70°	364.6	13.5
70°-80°	239.9	8.9
80°-90°	65.4	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°	683.1	25.3
0°-40°	1122.9	41.7
0°-60°	2026.2	75.2
0°-90°	2696.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2696.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	872	872	869	872	872	83
15°	839	840	841	849	849	237
25°	772	776	783	797	799	356
35°	678	686	702	720	726	425
45°	562	573	602	631	642	433
55°	426	444	491	537	554	379
65°	273	305	376	431	450	270
75°	118	173	251	297	304	128
85°	23	50	61	68	69	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	874.7	874.7	874.7	874.7	874.7
2.5°	875.8	874.7	870.2	874.7	874.7
5°	872.5	872.5	869.1	872.5	872.5
7.5°	866.8	866.8	864.6	869.1	869.1
10°	860.0	860.0	858.9	864.6	864.6
12.5°	849.9	851.0	849.9	856.7	856.7
15°	838.6	839.7	840.9	848.8	848.8
17.5°	823.9	826.2	828.4	837.5	838.6
20°	810.4	811.5	816.0	826.2	827.3
22.5°	792.3	795.7	801.4	811.5	814.9
25°	772.0	776.5	783.3	796.8	799.1
27.5°	752.8	756.2	765.2	779.9	784.4
30°	729.1	734.8	746.1	760.7	766.4
32.5°	706.5	712.2	725.7	741.5	746.1
35°	678.3	686.2	702.0	720.1	725.7
37.5°	651.2	659.1	678.3	698.6	705.4
40°	623.0	632.1	652.4	676.1	685.1
42.5°	592.6	605.0	627.5	653.5	663.7
45°	562.1	573.4	601.6	630.9	642.2
47.5°	529.3	542.9	573.4	608.4	621.9
50°	494.4	511.3	546.3	584.7	599.3
52.5°	459.4	478.6	518.1	560.9	576.8
55°	425.5	443.6	491.0	537.2	554.2
57.5°	388.3	410.8	462.8	512.4	529.3
60°	349.9	374.7	434.5	486.5	504.5
62.5°	311.5	339.7	407.4	459.4	478.6
65°	273.1	304.7	375.8	431.2	450.3
67.5°	235.9	270.9	346.5	401.8	421.0
70°	193.0	237.0	314.9	369.1	388.3
72.5°	153.5	204.3	284.4	335.2	352.1
75°	118.5	172.7	250.6	296.8	303.6
77.5°	86.9	141.1	215.6	231.4	232.5
80°	58.7	112.9	164.8	162.5	164.8
82.5°	38.4	84.7	103.8	116.3	117.4
85°	22.6	49.7	60.9	67.7	68.8
87.5°	11.3	16.9	21.4	22.6	24.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)