

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: P309700

Luminaire Tested: **24FCZ2-65HE-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: P309700  
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: 24FCZ2-65HE-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: 4326.0 lumens  
Efficiency: N/A  
Efficacy: 81.9 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

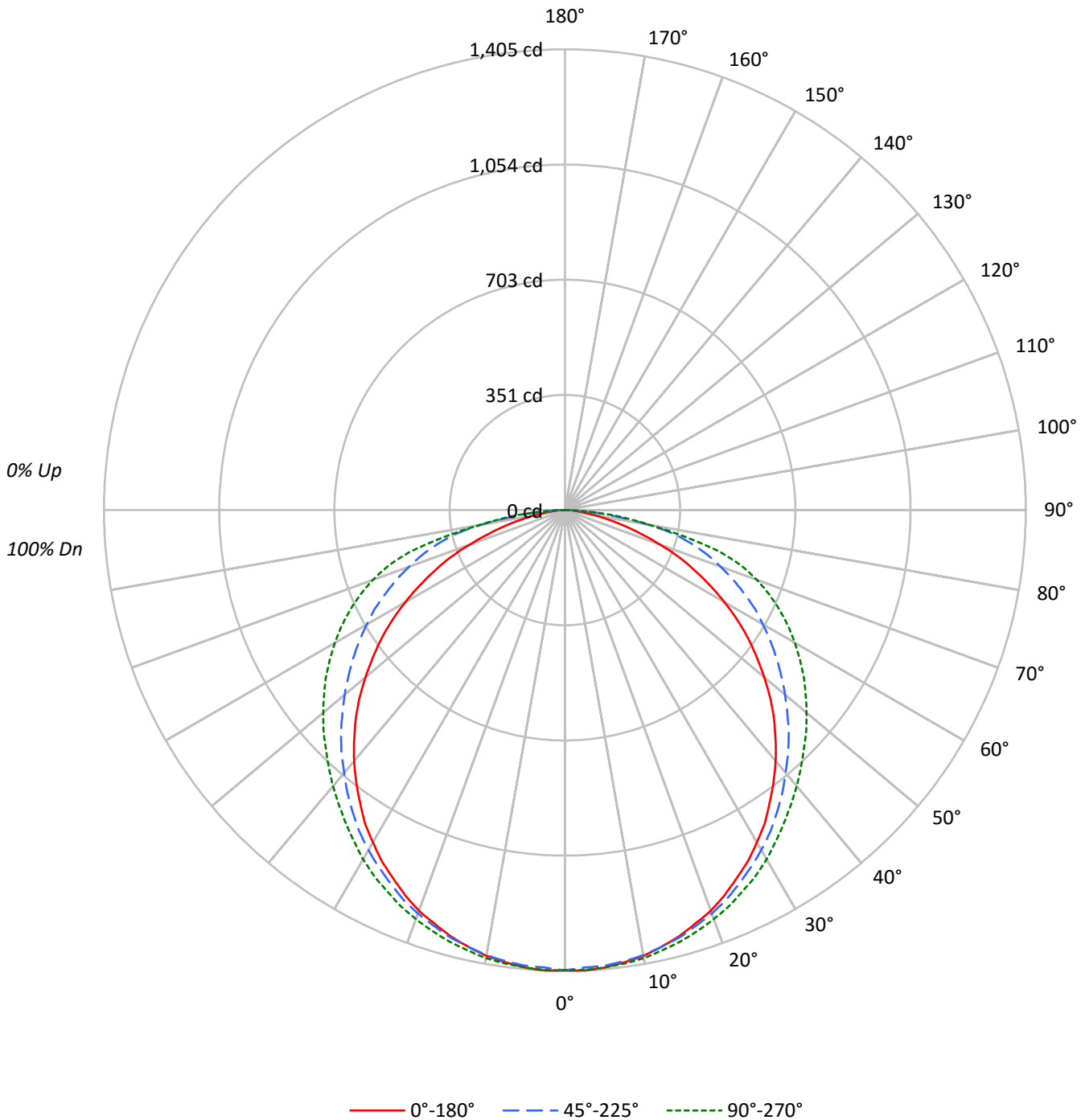
Input Watts (W): 52.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1889	1889	1889
5°	1891	1883	1891
10°	1885	1883	1895
15°	1874	1879	1897
20°	1862	1875	1901
25°	1839	1866	1904
30°	1818	1860	1911
35°	1788	1850	1913
40°	1756	1839	1931
45°	1716	1837	1961
50°	1660	1835	2013
55°	1602	1848	2086
60°	1511	1876	2178
65°	1395	1920	2301
70°	1218	1988	2451
75°	989	2090	2533
80°	730	2049	2049
85°	559	1510	1706



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.0	3.1
10°-20°	381.8	8.8
20°-30°	581.3	13.4
30°-40°	705.8	16.3
40°-50°	745.7	17.2
50°-60°	703.6	16.3
60°-70°	585.0	13.5
70°-80°	384.9	8.9
80°-90°	104.9	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°	1096.1	25.3
0°-40°	1801.8	41.7
0°-60°	3251.1	75.2
0°-90°	4326.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4326.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1404	1404	1404	1404	1404	
5°	1400	1400	1394	1400	1400	133
15°	1346	1347	1349	1362	1362	379
25°	1239	1246	1257	1279	1282	571
35°	1088	1101	1126	1156	1164	681
45°	902	920	965	1012	1030	695
55°	683	712	788	862	889	608
65°	438	489	603	692	723	433
75°	190	277	402	476	487	205
85°	36	80	98	109	110	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1403.6	1403.6	1403.6	1403.6	1403.6
2.5°	1405.4	1403.6	1396.3	1403.6	1403.6
5°	1400.0	1400.0	1394.5	1400.0	1400.0
7.5°	1390.9	1390.9	1387.3	1394.5	1394.5
10°	1380.0	1380.0	1378.2	1387.3	1387.3
12.5°	1363.7	1365.5	1363.7	1374.6	1374.6
15°	1345.6	1347.4	1349.2	1361.9	1361.9
17.5°	1322.1	1325.7	1329.3	1343.8	1345.6
20°	1300.3	1302.2	1309.4	1325.7	1327.5
22.5°	1271.4	1276.8	1285.9	1302.2	1307.6
25°	1238.8	1246.0	1256.9	1278.6	1282.2
27.5°	1208.0	1213.4	1227.9	1251.4	1258.7
30°	1169.9	1179.0	1197.1	1220.7	1229.7
32.5°	1133.7	1142.8	1164.5	1189.9	1197.1
35°	1088.4	1101.1	1126.5	1155.5	1164.5
37.5°	1045.0	1057.7	1088.4	1121.0	1131.9
40°	999.7	1014.2	1046.8	1084.8	1099.3
42.5°	950.8	970.7	1007.0	1048.6	1064.9
45°	901.9	920.0	965.3	1012.4	1030.5
47.5°	849.4	871.1	920.0	976.2	997.9
50°	793.2	820.4	876.6	938.1	961.7
52.5°	737.1	767.9	831.3	900.1	925.5
55°	682.8	711.7	787.8	862.1	889.2
57.5°	623.0	659.2	742.5	822.2	849.4
60°	561.4	601.3	697.3	780.6	809.5
62.5°	499.9	545.1	653.8	737.1	767.9
65°	438.3	489.0	603.1	691.8	722.6
67.5°	378.5	434.7	556.0	644.7	675.5
70°	309.7	380.3	505.3	592.2	623.0
72.5°	246.3	327.8	456.4	537.9	565.1
75°	190.2	277.1	402.1	476.3	487.2
77.5°	139.5	226.4	345.9	371.3	373.1
80°	94.2	181.1	264.4	260.8	264.4
82.5°	61.6	135.8	166.6	186.5	188.4
85°	36.2	79.7	97.8	108.7	110.5
87.5°	18.1	27.2	34.4	36.2	39.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)