Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P311560

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-S-CP187-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.

Report Generated By E9811737 / USPTCWHP6067151

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Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P311560
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	3/3/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	FAIL-SAFE
Catalog Number:	24FCZ2-50HE-UNV-L82765-S-CP187-W2A-U-6500K
Description:	2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source:	(336) 6500K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Luminaire Equipment:

Sample No.	Condition	Description
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:	4723.0 lumens
Efficiency:	N/A
Efficacy:	117.8 lumens/watt
Spacing Criteria (0/90/45):	1.2 / 1.26 / 1.35
Luminous Opening:	Rectangular (W 2' x L: 4' x H: 0')
CIE Type:	Direct

Input Watts (W):	40.1
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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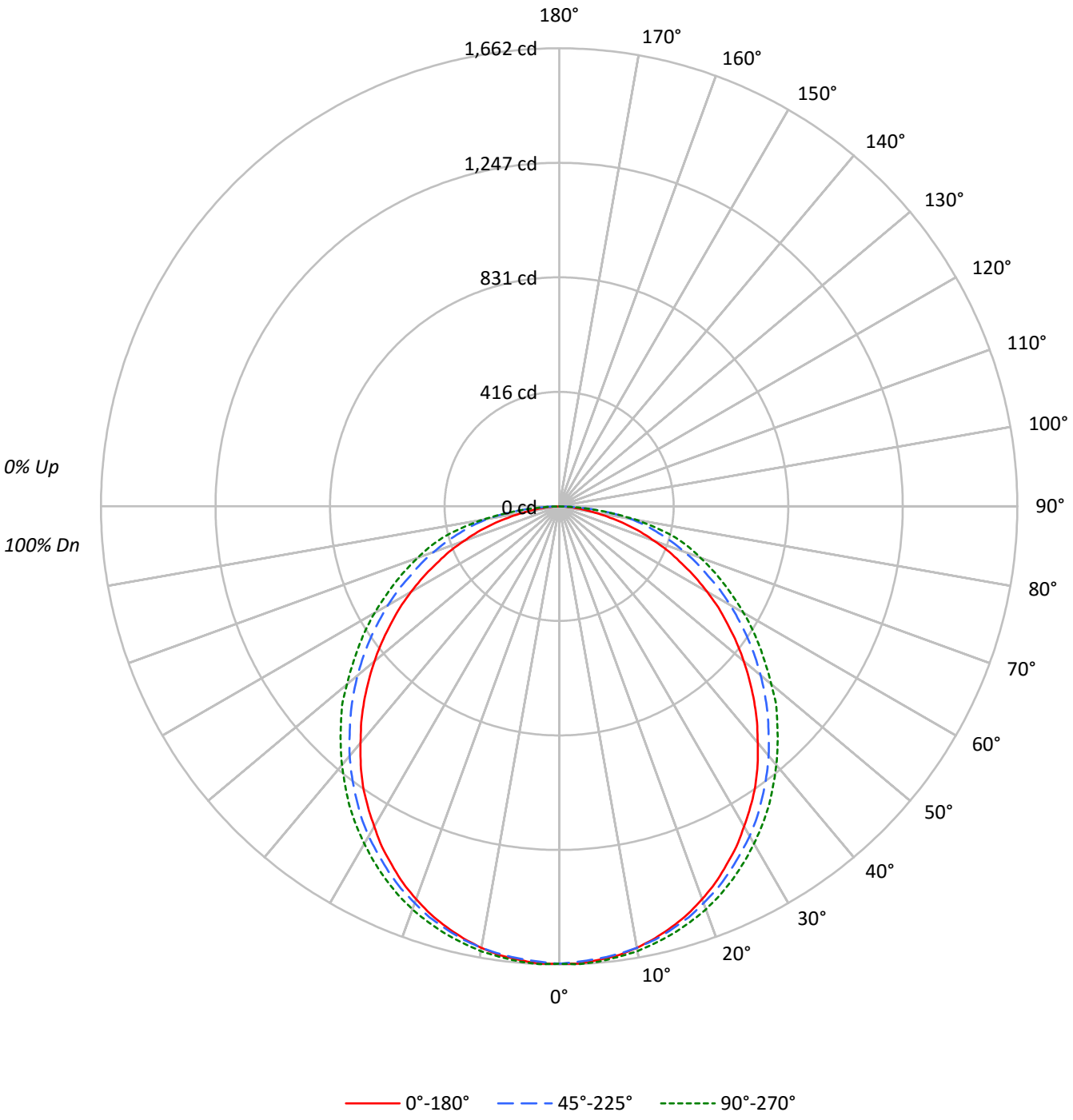
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2232	2232	2232
5°	2231	2225	2239
10°	2222	2222	2238
15°	2200	2211	2234
20°	2172	2193	2228
25°	2131	2171	2214
30°	2084	2147	2196
35°	2038	2112	2178
40°	1968	2076	2153
45°	1904	2035	2129
50°	1831	1997	2104
55°	1749	1960	2083
60°	1667	1930	2079
65°	1562	1896	2092
70°	1446	1906	2148
75°	1294	1942	2270
80°	1046	2057	2220
85°	787	1806	1760

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.1	3.3
10°-20°	448.8	9.5
20°-30°	674.7	14.3
30°-40°	803.7	17.0
40°-50°	822.5	17.4
50°-60°	740.5	15.7
60°-70°	581.6	12.3
70°-80°	377.4	8.0
80°-90°	116.7	2.5
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°	1280.6	27.1
0°-40°	2084.3	44.1
0°-60°	3647.3	77.2
0°-90°	4723.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4723.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1659	1659	1659	1659	1659	
5°	1652	1655	1647	1656	1658	157
15°	1580	1584	1587	1601	1604	445
25°	1436	1448	1463	1487	1491	661
35°	1241	1256	1286	1317	1326	774
45°	1001	1025	1070	1110	1119	771
55°	746	779	836	879	888	668
65°	491	528	596	645	657	488
75°	249	297	374	425	437	263
85°	51	94	117	114	114	62
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1659.2	1659.2	1659.2	1659.2	*1659.2*
2.5°	*1660.7*	*1660.7*	*1653.2*	*1660.7*	*1662.2*
5°	1651.7	1654.7	1647.2	1656.2	*1657.7*
7.5°	1642.7	1642.7	1638.2	1647.2	*1648.7*
10°	1626.2	1627.7	1626.2	1636.7	*1638.2*
12.5°	1605.2	1608.2	1609.7	1620.2	*1621.7*
15°	1579.7	1584.2	1587.2	1600.7	*1603.7*
17.5°	1551.2	1555.7	1563.2	1578.2	*1581.2*
20°	1516.7	1522.7	1531.7	1551.2	*1555.7*
22.5°	1479.2	1485.2	1500.2	1518.2	*1525.7*
25°	1435.7	1447.7	1462.7	1486.7	*1491.2*
27.5°	1392.2	1402.7	1422.2	1447.7	*1453.7*
30°	1341.2	1357.7	1381.7	1407.2	*1413.2*
32.5°	1291.7	1308.2	1336.7	1363.7	*1371.2*
35°	1240.7	1255.7	1285.7	1317.2	*1326.2*
37.5°	1182.2	1201.7	1234.7	1266.2	*1275.2*
40°	1120.6	1144.7	1182.2	1215.2	*1225.7*
42.5°	1062.1	1087.6	1125.1	1161.2	*1173.2*
45°	1000.6	1024.6	1069.6	1110.1	*1119.1*
47.5°	937.6	964.6	1012.6	1053.1	*1068.1*
50°	874.6	903.1	954.1	996.1	*1005.1*
52.5°	811.6	841.6	895.6	940.6	*945.1*
55°	745.6	778.6	835.6	879.1	*888.1*
57.5°	685.6	714.1	775.6	820.6	*831.1*
60°	619.6	651.1	717.1	759.1	*772.6*
62.5°	556.6	589.6	658.6	700.6	*712.6*
65°	490.6	528.1	595.6	645.1	*657.1*
67.5°	433.6	469.6	541.6	589.6	*601.6*
70°	367.5	408.1	484.6	534.1	*546.1*
72.5°	310.5	352.5	429.1	477.1	*495.1*
75°	249.0	297.0	373.5	424.6	*436.6*
77.5°	189.0	244.5	322.5	361.5	*361.5*
80°	135.0	193.5	265.5	283.5	*286.5*
82.5°	88.5	145.5	196.5	195.0	*195.0*
85°	51.0	94.5	117.0	114.0	*114.0*
87.5°	19.5	39.0	42.0	42.0	*40.5*
90°	0.0	0.0	0.0	0.0	*0.0*

(END OF REPORT)