

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: METALUX

Report Number: P272157

Luminaire Tested: **24CZ2-50HE-S-UNV-L930-CD1-U**

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: P272157
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: METALUX
Catalog Number: 24CZ2-50HE-S-UNV-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (224) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

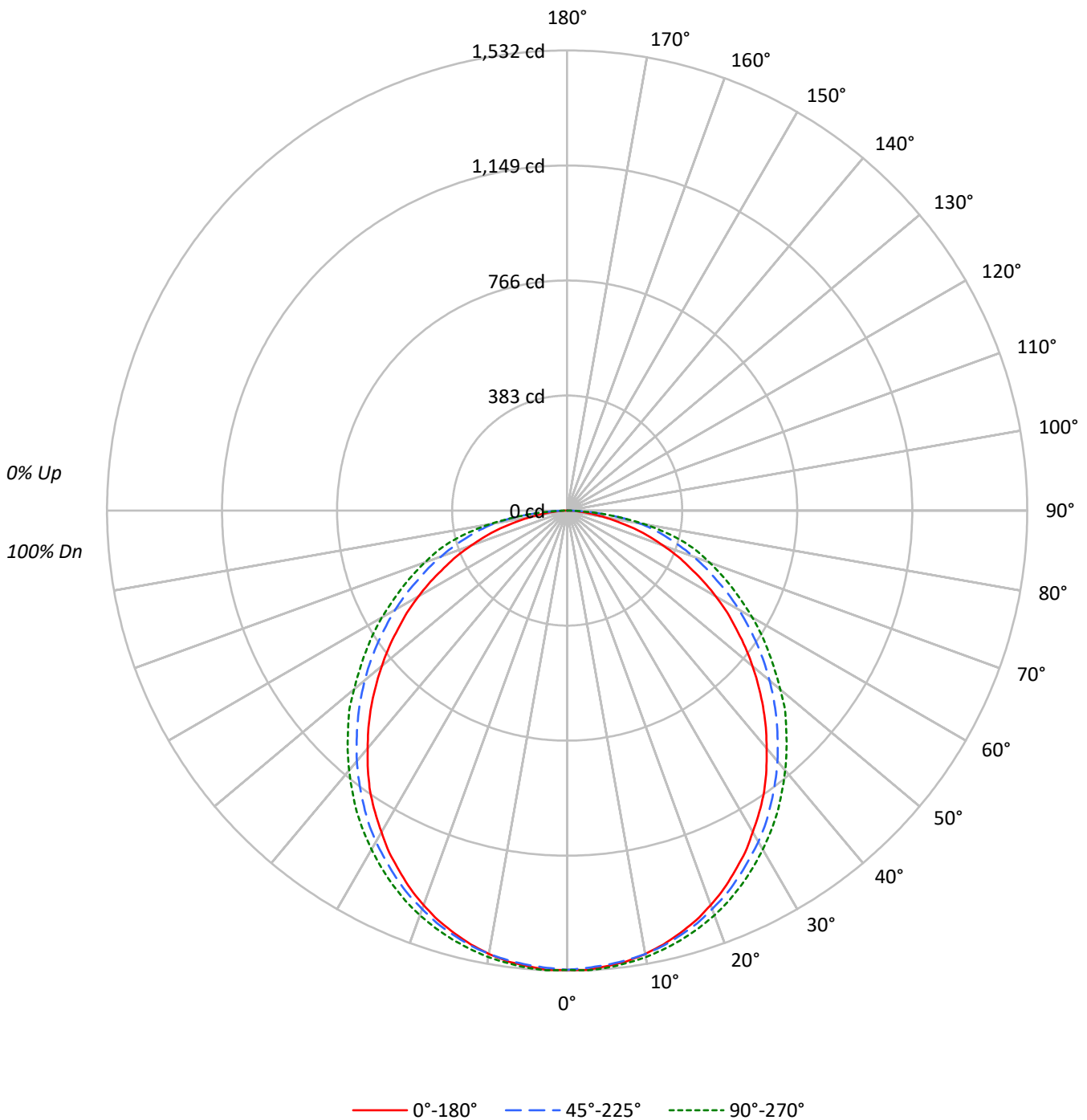
Lumens per Lamp: N/A
Luminaire Lumens: 4353.0 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.6
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	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°	2058	2058	2058
5°	2056	2051	2064
10°	2048	2048	2063
15°	2028	2038	2059
20°	2002	2021	2053
25°	1964	2001	2040
30°	1920	1978	2024
35°	1878	1946	2008
40°	1814	1914	1984
45°	1755	1876	1963
50°	1687	1841	1939
55°	1612	1806	1920
60°	1537	1778	1916
65°	1439	1748	1928
70°	1333	1757	1980
75°	1193	1790	2092
80°	964	1896	2046
85°	726	1664	1623



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.8	3.3
10°-20°	413.7	9.5
20°-30°	621.8	14.3
30°-40°	740.7	17.0
40°-50°	758.1	17.4
50°-60°	682.5	15.7
60°-70°	536.0	12.3
70°-80°	347.9	8.0
80°-90°	107.6	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°	1180.3	27.1
0°-40°	1921.0	44.1
0°-60°	3361.6	77.2
0°-90°	4353.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4353.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1529	1529	1529	1529	1529	
5°	1522	1525	1518	1526	1528	145
15°	1456	1460	1463	1475	1478	411
25°	1323	1334	1348	1370	1374	610
35°	1144	1157	1185	1214	1222	713
45°	922	944	986	1023	1032	711
55°	687	718	770	810	818	616
65°	452	487	549	594	606	450
75°	230	274	344	391	402	243
85°	47	87	108	105	105	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1529.2	1529.2	1529.2	1529.2	1529.2
2.5°	1530.6	1530.6	1523.7	1530.6	1532.0
5°	1522.3	1525.1	1518.2	1526.5	1527.9
7.5°	1514.0	1514.0	1509.9	1518.2	1519.6
10°	1498.8	1500.2	1498.8	1508.5	1509.9
12.5°	1479.5	1482.2	1483.6	1493.3	1494.7
15°	1456.0	1460.1	1462.9	1475.3	1478.1
17.5°	1429.7	1433.8	1440.7	1454.6	1457.3
20°	1397.9	1403.4	1411.7	1429.7	1433.8
22.5°	1363.3	1368.8	1382.7	1399.3	1406.2
25°	1323.2	1334.3	1348.1	1370.2	1374.4
27.5°	1283.1	1292.8	1310.8	1334.3	1339.8
30°	1236.1	1251.3	1273.4	1296.9	1302.5
32.5°	1190.5	1205.7	1232.0	1256.9	1263.8
35°	1143.5	1157.3	1185.0	1214.0	1222.3
37.5°	1089.5	1107.5	1137.9	1167.0	1175.3
40°	1032.9	1055.0	1089.5	1120.0	1129.6
42.5°	978.9	1002.4	1037.0	1070.2	1081.3
45°	922.2	944.4	985.8	1023.2	1031.5
47.5°	864.2	889.1	933.3	970.6	984.5
50°	806.1	832.4	879.4	918.1	926.4
52.5°	748.0	775.7	825.5	866.9	871.1
55°	687.2	717.6	770.1	810.2	818.5
57.5°	631.9	658.2	714.8	756.3	766.0
60°	571.0	600.1	660.9	699.6	712.1
62.5°	513.0	543.4	607.0	645.7	656.8
65°	452.1	486.7	548.9	594.5	605.6
67.5°	399.6	432.8	499.1	543.4	554.5
70°	338.8	376.1	446.6	492.2	503.3
72.5°	286.2	324.9	395.4	439.7	456.3
75°	229.5	273.8	344.3	391.3	402.4
77.5°	174.2	225.4	297.3	333.2	333.2
80°	124.4	178.4	244.7	261.3	264.1
82.5°	81.6	134.1	181.1	179.7	179.7
85°	47.0	87.1	107.8	105.1	105.1
87.5°	18.0	35.9	38.7	38.7	37.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)