

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: P276492

Luminaire Tested: **24CZ2-45HE-S-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276492
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: 24CZ2-45HE-S-UNV-L82765-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4450.1 lumens
Efficiency: N/A
Efficacy: 139.9 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

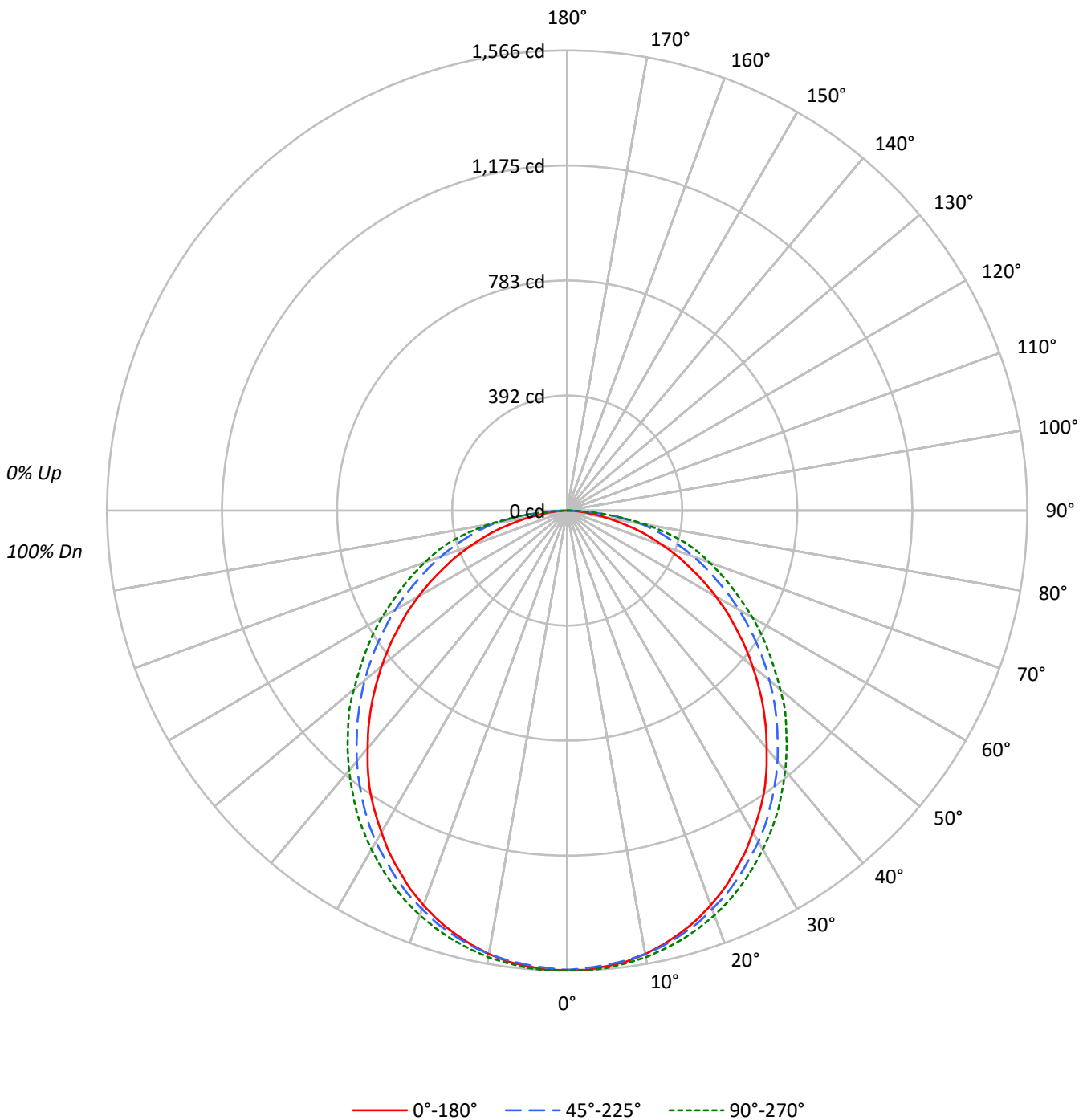
Input Watts (W): 31.806
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2104	2104	2104
5°	2102	2096	2110
10°	2093	2093	2109
15°	2073	2083	2105
20°	2046	2066	2099
25°	2008	2046	2086
30°	1963	2023	2069
35°	1920	1990	2053
40°	1855	1956	2028
45°	1794	1918	2007
50°	1725	1882	1982
55°	1648	1847	1963
60°	1571	1818	1959
65°	1472	1787	1971
70°	1362	1796	2024
75°	1220	1830	2138
80°	986	1939	2092
85°	743	1703	1658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.0	3.3
10°-20°	422.9	9.5
20°-30°	635.7	14.3
30°-40°	757.2	17.0
40°-50°	775.0	17.4
50°-60°	697.7	15.7
60°-70°	547.9	12.3
70°-80°	355.6	8.0
80°-90°	110.0	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°	1206.6	27.1
0°-40°	1963.8	44.1
0°-60°	3436.6	77.2
0°-90°	4450.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4450.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1563	1563	1563	1563	1563	
5°	1556	1559	1552	1560	1562	148
15°	1488	1493	1496	1508	1511	420
25°	1353	1364	1378	1401	1405	623
35°	1169	1183	1211	1241	1250	729
45°	943	965	1008	1046	1054	727
55°	702	734	787	828	837	630
65°	462	498	561	608	619	460
75°	235	280	352	400	411	248
85°	48	89	110	107	107	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1563.4	1563.4	1563.4	1563.4	1563.4
2.5°	1564.8	1564.8	1557.7	1564.8	1566.2
5°	1556.3	1559.1	1552.0	1560.5	1561.9
7.5°	1547.8	1547.8	1543.6	1552.0	1553.5
10°	1532.3	1533.7	1532.3	1542.2	1543.6
12.5°	1512.5	1515.3	1516.7	1526.6	1528.0
15°	1488.4	1492.7	1495.5	1508.2	1511.1
17.5°	1461.6	1465.8	1472.9	1487.0	1489.9
20°	1429.1	1434.7	1443.2	1461.6	1465.8
22.5°	1393.7	1399.4	1413.5	1430.5	1437.6
25°	1352.7	1364.0	1378.2	1400.8	1405.0
27.5°	1311.7	1321.6	1340.0	1364.0	1369.7
30°	1263.7	1279.2	1301.9	1325.9	1331.5
32.5°	1217.0	1232.6	1259.4	1284.9	1292.0
35°	1169.0	1183.1	1211.4	1241.1	1249.6
37.5°	1113.9	1132.2	1163.3	1193.0	1201.5
40°	1055.9	1078.5	1113.9	1145.0	1154.8
42.5°	1000.8	1024.8	1060.1	1094.1	1105.4
45°	942.8	965.4	1007.8	1046.0	1054.5
47.5°	883.5	908.9	954.1	992.3	1006.4
50°	824.1	850.9	899.0	938.6	947.1
52.5°	764.7	793.0	843.9	886.3	890.5
55°	702.5	733.6	787.3	828.3	836.8
57.5°	646.0	672.8	730.8	773.2	783.1
60°	583.8	613.5	675.7	715.2	728.0
62.5°	524.4	555.5	620.5	660.1	671.4
65°	462.2	497.6	561.2	607.8	619.1
67.5°	408.5	442.4	510.3	555.5	566.8
70°	346.3	384.5	456.6	503.2	514.5
72.5°	292.6	332.2	404.3	449.5	466.5
75°	234.6	279.9	352.0	400.0	411.3
77.5°	178.1	230.4	303.9	340.7	340.7
80°	127.2	182.3	250.2	267.2	270.0
82.5°	83.4	137.1	185.2	183.8	183.8
85°	48.1	89.1	110.3	107.4	107.4
87.5°	18.4	36.8	39.6	39.6	38.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)