

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: P276489

Luminaire Tested: **24CZ2-45HE-S-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276489
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-2700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4090.3 lumens
Efficiency: N/A
Efficacy: 130.1 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

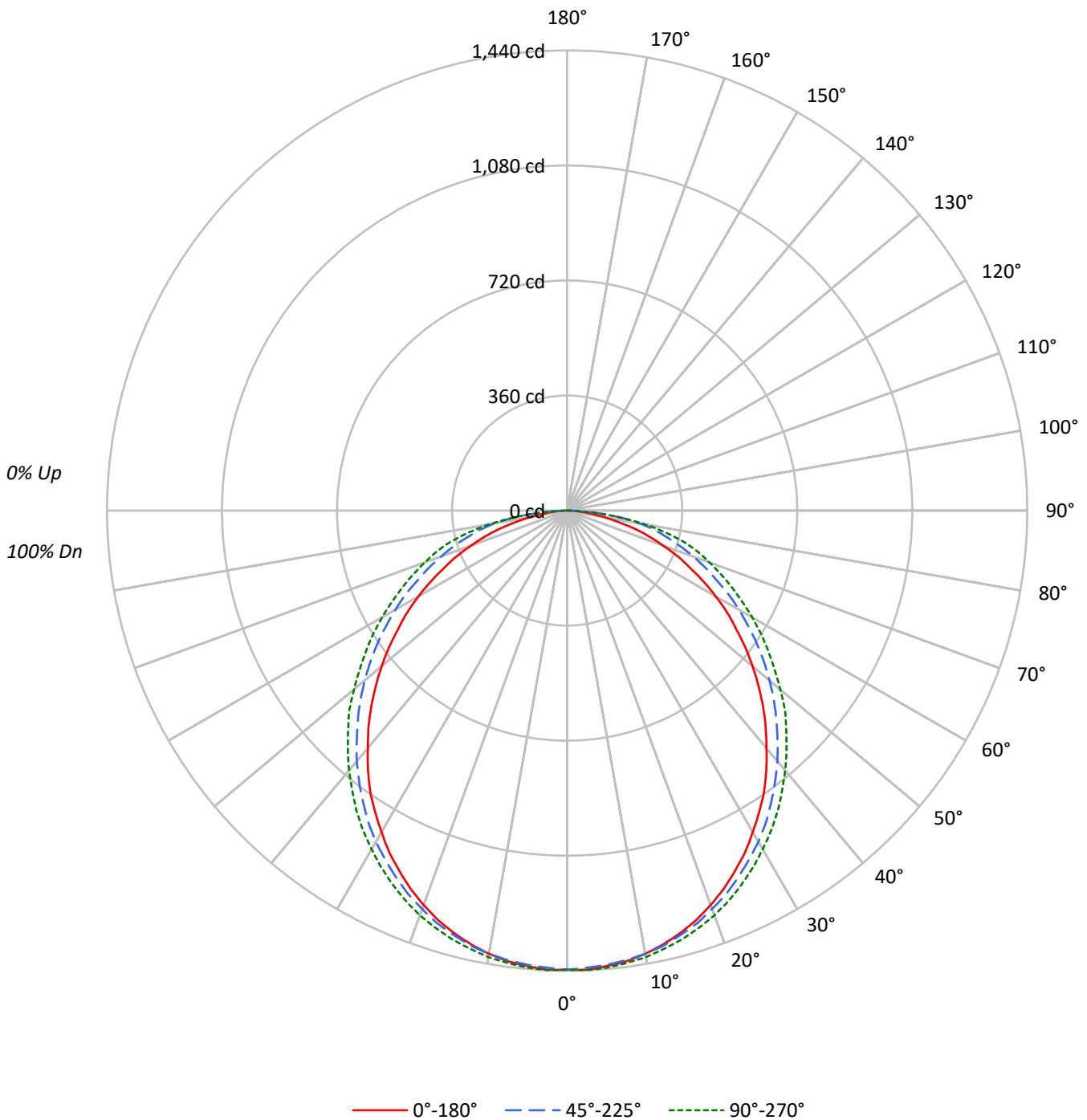
Input Watts (W): 31.434
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1933	1933	1933
5°	1932	1927	1939
10°	1924	1924	1938
15°	1906	1915	1935
20°	1881	1899	1929
25°	1846	1881	1917
30°	1805	1859	1901
35°	1765	1829	1886
40°	1705	1798	1864
45°	1649	1763	1844
50°	1585	1730	1822
55°	1515	1698	1804
60°	1444	1671	1801
65°	1352	1642	1812
70°	1252	1651	1860
75°	1121	1682	1966
80°	906	1782	1923
85°	682	1564	1524



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	3.3
10°-20°	388.7	9.5
20°-30°	584.3	14.3
30°-40°	696.0	17.0
40°-50°	712.3	17.4
50°-60°	641.3	15.7
60°-70°	503.6	12.3
70°-80°	326.9	8.0
80°-90°	101.1	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°	1109.1	27.1
0°-40°	1805.1	44.1
0°-60°	3158.7	77.2
0°-90°	4090.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4090.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1437	1437	1437	1437	1437	
5°	1430	1433	1427	1434	1436	136
15°	1368	1372	1375	1386	1389	386
25°	1243	1254	1267	1288	1291	573
35°	1074	1088	1113	1141	1148	670
45°	867	887	926	961	969	668
55°	646	674	724	761	769	579
65°	425	457	516	559	569	423
75°	216	257	324	368	378	228
85°	44	82	101	99	99	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1436.9	1436.9	1436.9	1436.9	1436.9
2.5°	1438.2	1438.2	1431.7	1438.2	1439.5
5°	1430.4	1433.0	1426.6	1434.3	1435.6
7.5°	1422.7	1422.7	1418.8	1426.6	1427.8
10°	1408.4	1409.7	1408.4	1417.5	1418.8
12.5°	1390.2	1392.8	1394.1	1403.2	1404.5
15°	1368.1	1372.0	1374.6	1386.3	1388.9
17.5°	1343.4	1347.3	1353.8	1366.8	1369.4
20°	1313.5	1318.7	1326.5	1343.4	1347.3
22.5°	1281.0	1286.2	1299.2	1314.8	1321.3
25°	1243.4	1253.8	1266.7	1287.5	1291.4
27.5°	1205.7	1214.8	1231.7	1253.8	1259.0
30°	1161.5	1175.8	1196.6	1218.7	1223.9
32.5°	1118.6	1132.9	1157.6	1181.0	1187.5
35°	1074.5	1087.5	1113.4	1140.7	1148.5
37.5°	1023.8	1040.7	1069.3	1096.5	1104.3
40°	970.5	991.3	1023.8	1052.4	1061.5
42.5°	919.9	941.9	974.4	1005.6	1016.0
45°	866.6	887.4	926.3	961.4	969.2
47.5°	812.0	835.4	877.0	912.1	925.0
50°	757.4	782.1	826.3	862.7	870.5
52.5°	702.9	728.9	775.6	814.6	818.5
55°	645.7	674.3	723.7	761.3	769.1
57.5°	593.7	618.4	671.7	710.7	719.8
60°	536.6	563.9	621.0	657.4	669.1
62.5°	482.0	510.6	570.4	606.7	617.1
65°	424.8	457.3	515.8	558.7	569.1
67.5°	375.5	406.7	469.0	510.6	521.0
70°	318.3	353.4	419.7	462.5	472.9
72.5°	268.9	305.3	371.6	413.2	428.7
75°	215.7	257.2	323.5	367.7	378.1
77.5°	163.7	211.8	279.3	313.1	313.1
80°	116.9	167.6	230.0	245.6	248.2
82.5°	76.7	126.0	170.2	168.9	168.9
85°	44.2	81.9	101.3	98.7	98.7
87.5°	16.9	33.8	36.4	36.4	35.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)