

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: P275997

Luminaire Tested: **24CZ2-60HE-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275997
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60HE-UNV-L93050-W2A1-U-3000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4439.5 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

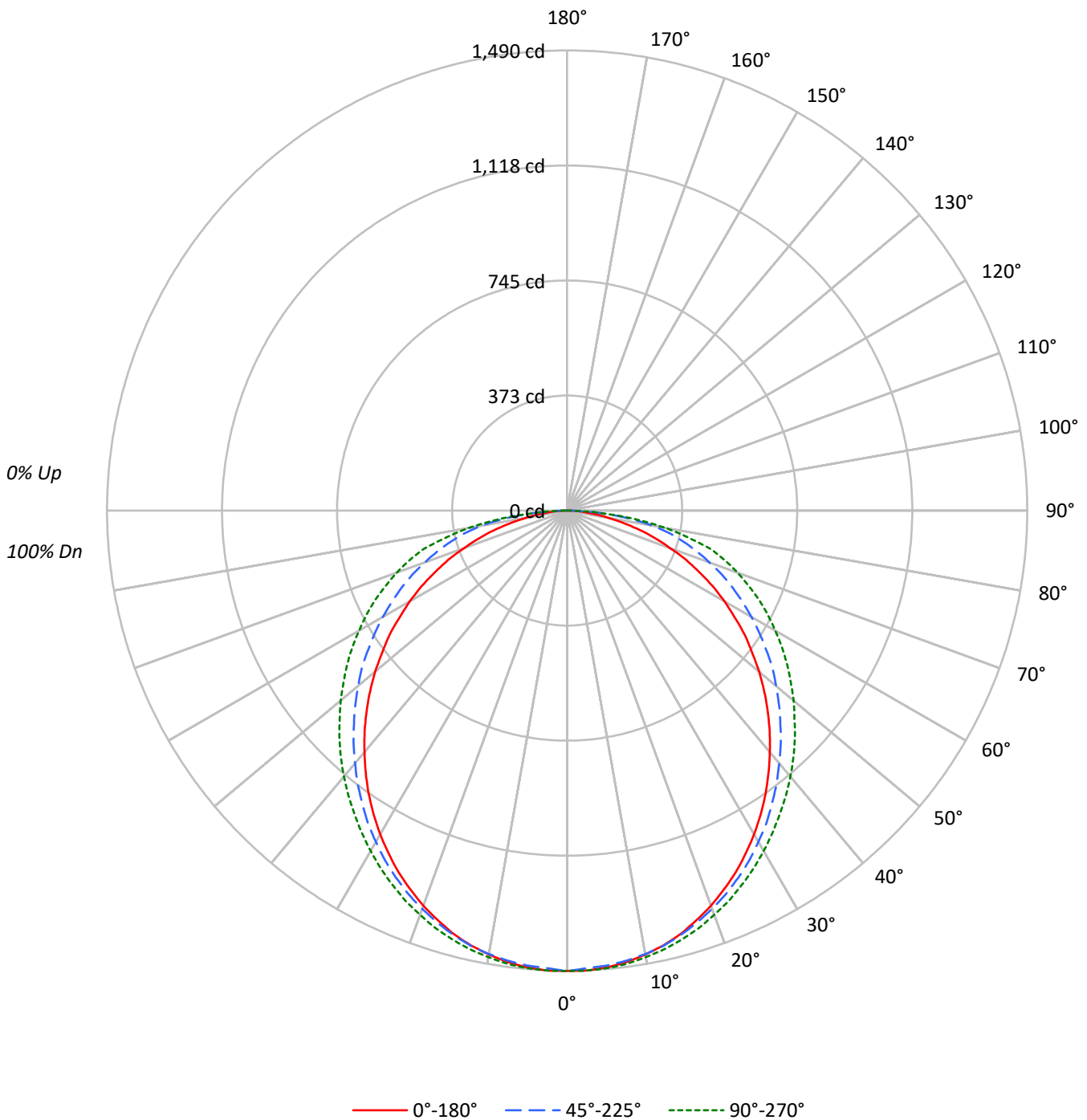
Input Watts (W): 45.286164
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P275997

CATALOG NUMBER: 24CZ2-60HE-UNV-L93050-W2A1-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P275997

CATALOG NUMBER: 24CZ2-60HE-UNV-L93050-W2A1-U-3000K

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	100	96	92	96	93	89	92	89	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	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	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	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2005	2005	2005
5°	2005	1997	2009
10°	1994	1992	2006
15°	1977	1981	2002
20°	1950	1964	1994
25°	1918	1947	1986
30°	1881	1924	1977
35°	1840	1901	1971
40°	1793	1876	1975
45°	1748	1858	1985
50°	1699	1849	2003
55°	1647	1846	2040
60°	1583	1854	2093
65°	1500	1882	2184
70°	1393	1929	2308
75°	1271	2026	2503
80°	1044	2181	2503
85°	801	2013	2150



TEST NUMBER: P275997

CATALOG NUMBER: 24CZ2-60HE-UNV-L93050-W2A1-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.0	3.2
10°-20°	402.5	9.1
20°-30°	605.6	13.6
30°-40°	725.8	16.3
40°-50°	756.3	17.0
50°-60°	703.7	15.9
60°-70°	579.6	13.1
70°-80°	394.7	8.9
80°-90°	130.3	2.9
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°	1149.1	25.9
0°-40°	1874.8	42.2
0°-60°	3334.9	75.1
0°-90°	4439.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4439.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1490	1490	1490	1490	1490	
5°	1485	1485	1479	1486	1488	141
15°	1419	1421	1422	1436	1437	400
25°	1292	1298	1311	1334	1338	595
35°	1120	1134	1157	1188	1200	700
45°	919	938	976	1025	1043	708
55°	702	726	787	849	870	626
65°	471	511	591	661	686	468
75°	244	299	390	459	482	258
85°	52	101	130	139	139	64
90°	0	0	0	0	0	



TEST NUMBER: P275997

CATALOG NUMBER: 24CZ2-60HE-UNV-L93050-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1490.5	1490.5	1490.5	1490.5	1490.5
2.5°	1490.5	1490.5	1483.1	1490.5	1490.5
5°	1484.6	1484.6	1478.7	1486.1	1487.6
7.5°	1474.2	1475.7	1469.8	1478.7	1480.2
10°	1459.4	1460.9	1457.9	1466.8	1468.3
12.5°	1441.6	1443.1	1443.1	1453.5	1455.0
15°	1419.4	1420.9	1422.4	1435.7	1437.2
17.5°	1391.3	1395.7	1398.7	1415.0	1417.9
20°	1361.6	1366.1	1372.0	1389.8	1392.8
22.5°	1327.6	1333.5	1343.9	1363.1	1367.6
25°	1292.0	1297.9	1311.3	1333.5	1337.9
27.5°	1252.0	1260.9	1277.2	1300.9	1306.8
30°	1210.5	1219.4	1238.7	1263.8	1272.7
32.5°	1166.1	1177.9	1200.1	1228.3	1237.2
35°	1120.1	1133.5	1157.2	1188.3	1200.1
37.5°	1071.2	1086.0	1114.2	1148.3	1163.1
40°	1020.9	1038.6	1068.3	1108.3	1124.6
42.5°	970.5	986.8	1023.8	1066.8	1084.6
45°	918.6	937.9	976.4	1025.3	1043.1
47.5°	865.3	884.5	930.5	982.3	998.6
50°	811.9	831.2	883.1	937.9	957.1
52.5°	754.2	779.3	838.6	893.4	912.7
55°	702.3	726.0	786.8	849.0	869.7
57.5°	643.0	671.2	737.9	803.1	825.3
60°	588.2	617.8	689.0	755.6	777.9
62.5°	531.9	564.5	640.1	708.2	733.4
65°	471.2	511.2	591.2	660.8	686.0
67.5°	416.3	457.8	542.3	613.4	635.6
70°	354.1	404.5	490.4	561.5	586.7
72.5°	300.8	351.2	441.5	511.2	536.4
75°	244.5	299.3	389.7	459.3	481.5
77.5°	188.2	248.9	339.3	392.6	400.0
80°	134.8	198.5	281.5	312.6	323.0
82.5°	94.8	152.6	207.4	228.2	234.1
85°	51.9	100.8	130.4	139.3	139.3
87.5°	22.2	43.0	51.9	53.3	54.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)