

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: P276035

Luminaire Tested: **24CZ2-45-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276035
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: 24CZ2-45-UNV-L93050-W2A1-U-4500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4004.3 lumens
Efficiency: N/A
Efficacy: 109.9 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

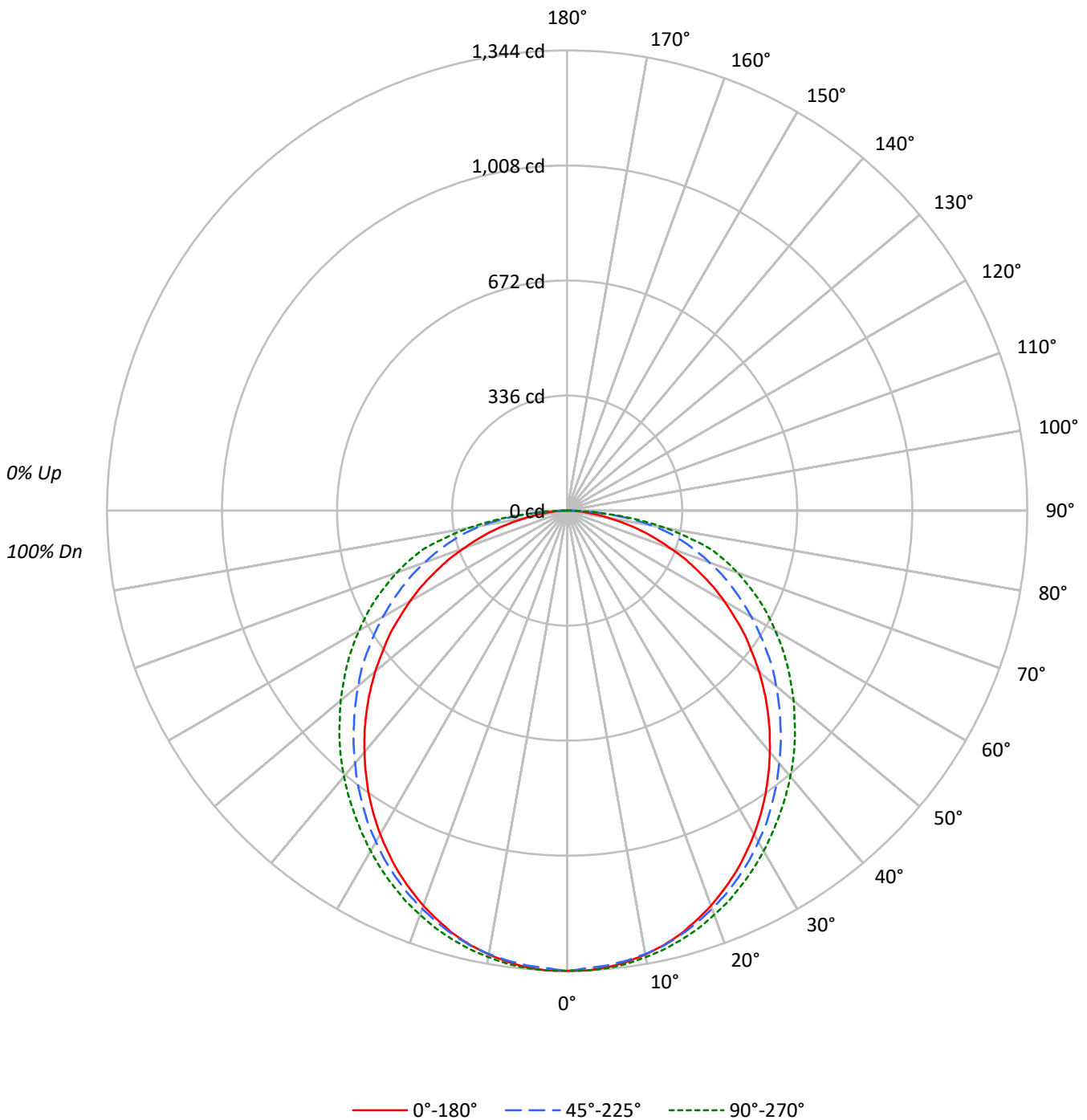
Input Watts (W): 36.436656
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P276035

CATALOG NUMBER: 24CZ2-45-UNV-L93050-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P276035

CATALOG NUMBER: 24CZ2-45-UNV-L93050-W2A1-U-4500K

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°	1809	1809	1809
5°	1809	1801	1812
10°	1799	1797	1809
15°	1783	1787	1806
20°	1759	1772	1799
25°	1730	1756	1792
30°	1696	1736	1784
35°	1659	1714	1778
40°	1617	1692	1782
45°	1577	1676	1790
50°	1533	1667	1807
55°	1486	1665	1840
60°	1428	1672	1888
65°	1353	1698	1970
70°	1257	1740	2082
75°	1146	1827	2258
80°	942	1967	2257
85°	722	1815	1939



TEST NUMBER: P276035

CATALOG NUMBER: 24CZ2-45-UNV-L93050-W2A1-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.2	3.2
10°-20°	363.0	9.1
20°-30°	546.3	13.6
30°-40°	654.6	16.3
40°-50°	682.2	17.0
50°-60°	634.7	15.9
60°-70°	522.8	13.1
70°-80°	356.0	8.9
80°-90°	117.5	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°	1036.4	25.9
0°-40°	1691.1	42.2
0°-60°	3008.0	75.1
0°-90°	4004.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4004.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1344	1344	1344	1344	1344	
5°	1339	1339	1334	1340	1342	127
15°	1280	1282	1283	1295	1296	361
25°	1165	1171	1183	1203	1207	536
35°	1010	1022	1044	1072	1082	632
45°	829	846	881	925	941	639
55°	634	655	710	766	784	565
65°	425	461	533	596	619	422
75°	220	270	352	414	434	232
85°	47	91	118	126	126	58
90°	0	0	0	0	0	



TEST NUMBER: P276035

CATALOG NUMBER: 24CZ2-45-UNV-L93050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1344.4	1344.4	1344.4	1344.4	1344.4
2.5°	1344.4	1344.4	1337.8	1344.4	1344.4
5°	1339.1	1339.1	1333.7	1340.4	1341.8
7.5°	1329.7	1331.1	1325.7	1333.7	1335.1
10°	1316.4	1317.7	1315.0	1323.1	1324.4
12.5°	1300.3	1301.7	1301.7	1311.0	1312.4
15°	1280.3	1281.6	1283.0	1295.0	1296.3
17.5°	1254.9	1258.9	1261.6	1276.3	1278.9
20°	1228.2	1232.2	1237.5	1253.6	1256.2
22.5°	1197.4	1202.8	1212.1	1229.5	1233.5
25°	1165.4	1170.7	1182.7	1202.8	1206.8
27.5°	1129.3	1137.3	1152.0	1173.4	1178.7
30°	1091.9	1099.9	1117.2	1140.0	1148.0
32.5°	1051.8	1062.5	1082.5	1107.9	1115.9
35°	1010.3	1022.4	1043.7	1071.8	1082.5
37.5°	966.2	979.6	1005.0	1035.7	1049.1
40°	920.8	936.8	963.6	999.6	1014.3
42.5°	875.4	890.1	923.5	962.2	978.3
45°	828.6	846.0	880.7	924.8	940.8
47.5°	780.5	797.8	839.3	886.0	900.7
50°	732.4	749.7	796.5	846.0	863.3
52.5°	680.2	703.0	756.4	805.9	823.2
55°	633.5	654.8	709.6	765.8	784.5
57.5°	580.0	605.4	665.5	724.3	744.4
60°	530.6	557.3	621.4	681.6	701.6
62.5°	479.8	509.2	577.3	638.8	661.5
65°	425.0	461.1	533.2	596.0	618.8
67.5°	375.5	413.0	489.1	553.3	573.3
70°	319.4	364.8	442.4	506.5	529.2
72.5°	271.3	316.7	398.3	461.1	483.8
75°	220.5	270.0	351.5	414.3	434.3
77.5°	169.7	224.5	306.0	354.2	360.8
80°	121.6	179.1	253.9	282.0	291.3
82.5°	85.5	137.7	187.1	205.8	211.2
85°	46.8	90.9	117.6	125.6	125.6
87.5°	20.0	38.8	46.8	48.1	49.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)