

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: P276032

Luminaire Tested: **24CZ2-45-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276032
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-3000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3335.5 lumens
Efficiency: N/A
Efficacy: 93.2 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

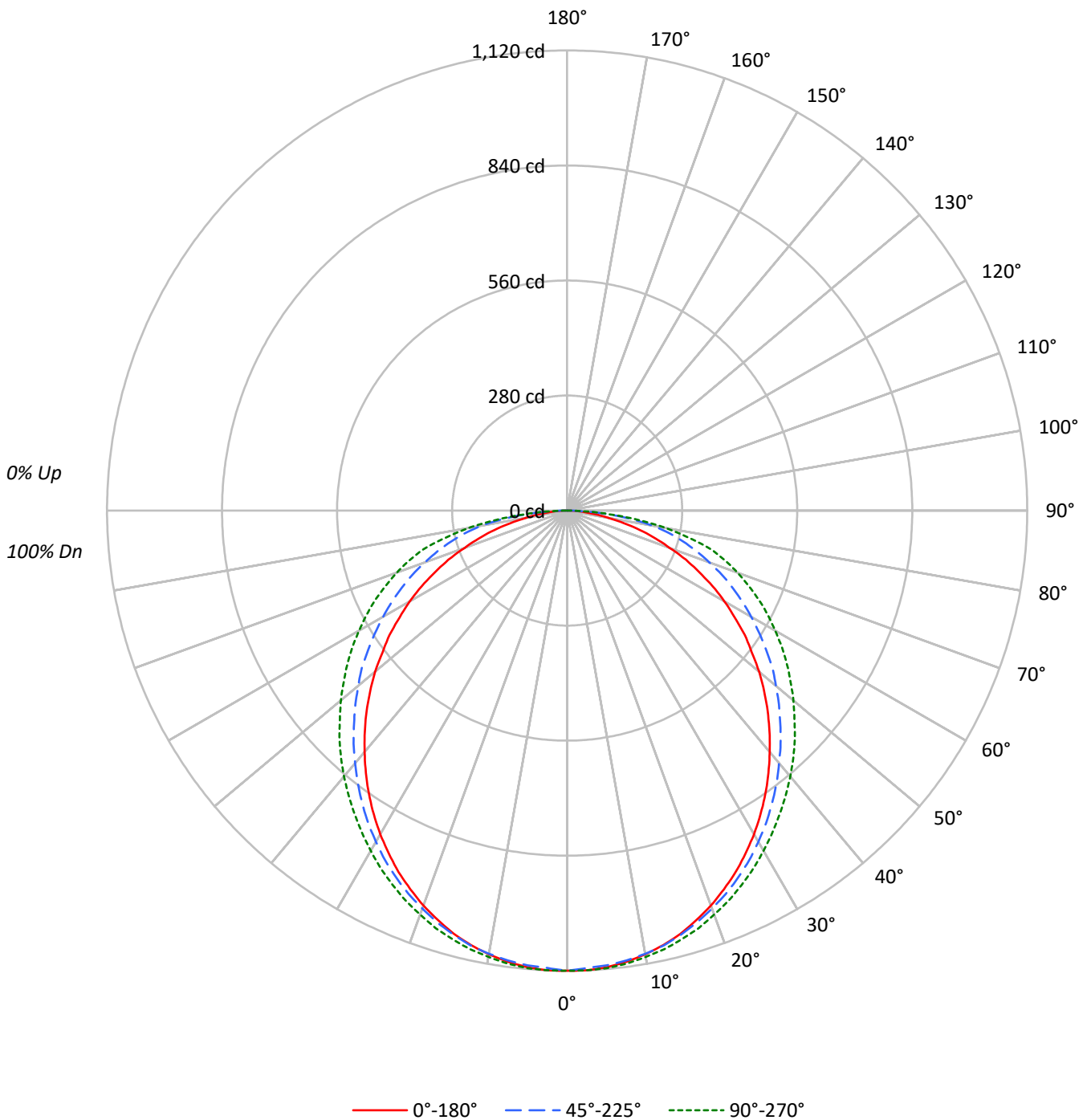
Input Watts (W): 35.772264
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P276032

CATALOG NUMBER: 24CZ2-45-UNV-L93050-W2A1-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P276032

CATALOG NUMBER: 24CZ2-45-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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1507	1507	1507
5°	1506	1501	1510
10°	1498	1497	1507
15°	1485	1489	1504
20°	1465	1476	1498
25°	1441	1463	1492
30°	1413	1446	1486
35°	1382	1428	1481
40°	1347	1410	1484
45°	1313	1396	1491
50°	1277	1389	1505
55°	1238	1387	1533
60°	1189	1393	1573
65°	1127	1414	1641
70°	1047	1450	1734
75°	955	1522	1881
80°	785	1639	1881
85°	602	1513	1615



TEST NUMBER: P276032

CATALOG NUMBER: 24CZ2-45-UNV-L93050-W2A1-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.9	3.2
10°-20°	302.4	9.1
20°-30°	455.0	13.6
30°-40°	545.3	16.3
40°-50°	568.3	17.0
50°-60°	528.7	15.9
60°-70°	435.4	13.1
70°-80°	296.6	8.9
80°-90°	97.9	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°	863.3	25.9
0°-40°	1408.6	42.2
0°-60°	2505.6	75.1
0°-90°	3335.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3335.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1115	1115	1111	1116	1118	106
15°	1066	1068	1069	1079	1080	300
25°	971	975	985	1002	1005	447
35°	842	852	869	893	902	526
45°	690	705	734	770	784	532
55°	528	546	591	638	653	470
65°	354	384	444	496	515	351
75°	184	225	293	345	362	194
85°	39	76	98	105	105	48
90°	0	0	0	0	0	



TEST NUMBER: P276032

CATALOG NUMBER: 24CZ2-45-UNV-L93050-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1119.9	1119.9	1119.9	1119.9	1119.9
2.5°	1119.9	1119.9	1114.3	1119.9	1119.9
5°	1115.4	1115.4	1111.0	1116.5	1117.7
7.5°	1107.6	1108.7	1104.3	1111.0	1112.1
10°	1096.5	1097.6	1095.4	1102.1	1103.2
12.5°	1083.1	1084.3	1084.3	1092.1	1093.2
15°	1066.4	1067.6	1068.7	1078.7	1079.8
17.5°	1045.3	1048.6	1050.9	1063.1	1065.3
20°	1023.0	1026.4	1030.8	1044.2	1046.4
22.5°	997.4	1001.9	1009.7	1024.1	1027.5
25°	970.7	975.2	985.2	1001.9	1005.2
27.5°	940.7	947.3	959.6	977.4	981.8
30°	909.5	916.2	930.6	949.6	956.2
32.5°	876.1	885.0	901.7	922.8	929.5
35°	841.6	851.6	869.4	892.8	901.7
37.5°	804.8	816.0	837.1	862.7	873.9
40°	767.0	780.4	802.6	832.7	844.9
42.5°	729.1	741.4	769.2	801.5	814.9
45°	690.2	704.7	733.6	770.3	783.7
47.5°	650.1	664.6	699.1	738.1	750.3
50°	610.0	624.5	663.5	704.7	719.1
52.5°	566.6	585.5	630.1	671.3	685.7
55°	527.7	545.5	591.1	637.9	653.4
57.5°	483.1	504.3	554.4	603.4	620.1
60°	441.9	464.2	517.6	567.7	584.4
62.5°	399.6	424.1	480.9	532.1	551.0
65°	354.0	384.1	444.2	496.5	515.4
67.5°	312.8	344.0	407.4	460.9	477.6
70°	266.1	303.9	368.5	421.9	440.8
72.5°	226.0	263.8	331.7	384.1	403.0
75°	183.7	224.9	292.8	345.1	361.8
77.5°	141.4	187.0	254.9	295.0	300.6
80°	101.3	149.2	211.5	234.9	242.7
82.5°	71.2	114.7	155.8	171.4	175.9
85°	39.0	75.7	98.0	104.6	104.6
87.5°	16.7	32.3	39.0	40.1	41.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)