

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: P276206

Luminaire Tested: **24CZ2-45HE-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276206
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: 24CZ2-45HE-UNV-L92765-W2A1-U-3500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3629.8 lumens
Efficiency: N/A
Efficacy: 115.1 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

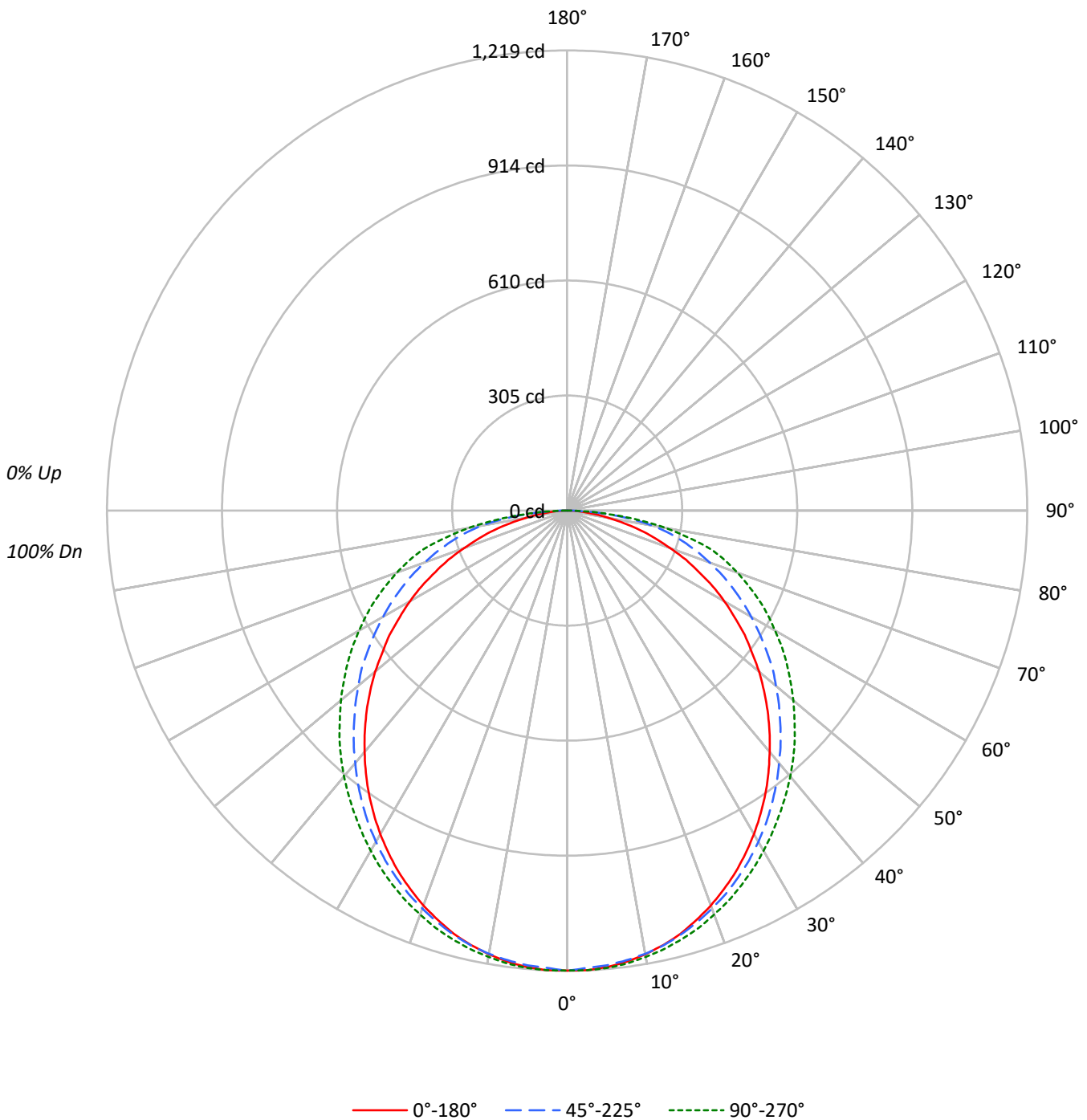
Input Watts (W): 31.527
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1640	1640	1640
5°	1639	1633	1643
10°	1630	1629	1640
15°	1617	1620	1637
20°	1594	1606	1630
25°	1568	1592	1624
30°	1538	1574	1617
35°	1504	1554	1612
40°	1466	1534	1615
45°	1429	1519	1623
50°	1390	1511	1638
55°	1347	1509	1668
60°	1294	1516	1711
65°	1226	1539	1786
70°	1139	1578	1887
75°	1039	1656	2047
80°	854	1784	2046
85°	655	1646	1758



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	3.2
10°-20°	329.1	9.1
20°-30°	495.2	13.6
30°-40°	593.4	16.3
40°-50°	618.4	17.0
50°-60°	575.4	15.9
60°-70°	473.9	13.1
70°-80°	322.7	8.9
80°-90°	106.6	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°	939.5	25.9
0°-40°	1532.9	42.2
0°-60°	2726.7	75.1
0°-90°	3629.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3629.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1219	1219	1219	1219	1219	
5°	1214	1214	1209	1215	1216	115
15°	1160	1162	1163	1174	1175	327
25°	1056	1061	1072	1090	1094	486
35°	916	927	946	972	981	572
45°	751	767	798	838	853	579
55°	574	594	643	694	711	512
65°	385	418	483	540	561	382
75°	200	245	319	376	394	211
85°	42	82	107	114	114	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1218.7	1218.7	1218.7	1218.7	1218.7
2.5°	1218.7	1218.7	1212.6	1218.7	1218.7
5°	1213.8	1213.8	1209.0	1215.1	1216.3
7.5°	1205.4	1206.6	1201.7	1209.0	1210.2
10°	1193.3	1194.5	1192.0	1199.3	1200.5
12.5°	1178.7	1179.9	1179.9	1188.4	1189.6
15°	1160.5	1161.8	1163.0	1173.9	1175.1
17.5°	1137.5	1141.2	1143.6	1156.9	1159.3
20°	1113.3	1116.9	1121.8	1136.3	1138.7
22.5°	1085.4	1090.3	1098.8	1114.5	1118.1
25°	1056.4	1061.2	1072.1	1090.3	1093.9
27.5°	1023.7	1030.9	1044.2	1063.6	1068.5
30°	989.7	997.0	1012.8	1033.3	1040.6
32.5°	953.4	963.1	981.3	1004.3	1011.5
35°	915.8	926.7	946.1	971.6	981.3
37.5°	875.9	888.0	911.0	938.9	951.0
40°	834.7	849.2	873.4	906.1	919.5
42.5°	793.5	806.8	837.1	872.2	886.8
45°	751.1	766.8	798.3	838.3	852.8
47.5°	707.5	723.2	760.8	803.2	816.5
50°	663.9	679.6	722.0	766.8	782.6
52.5°	616.6	637.2	685.7	730.5	746.2
55°	574.2	593.6	643.3	694.1	711.1
57.5°	525.8	548.8	603.3	656.6	674.8
60°	480.9	505.2	563.3	617.8	636.0
62.5°	434.9	461.6	523.3	579.1	599.7
65°	385.2	417.9	483.4	540.3	560.9
67.5°	340.4	374.3	443.4	501.5	519.7
70°	289.5	330.7	401.0	459.1	479.7
72.5°	245.9	287.1	361.0	417.9	438.5
75°	199.9	244.7	318.6	375.5	393.7
77.5°	153.9	203.5	277.4	321.0	327.1
80°	110.2	162.3	230.2	255.6	264.1
82.5°	77.5	124.8	169.6	186.6	191.4
85°	42.4	82.4	106.6	113.9	113.9
87.5°	18.2	35.1	42.4	43.6	44.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)