

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: P261291

Luminaire Tested: **24CZ-LD5-45-S-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261291  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-45-S-UNV-L92765-W2A1-U-5700K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4313.0 lumens  
Efficiency: N/A  
Efficacy: 133.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

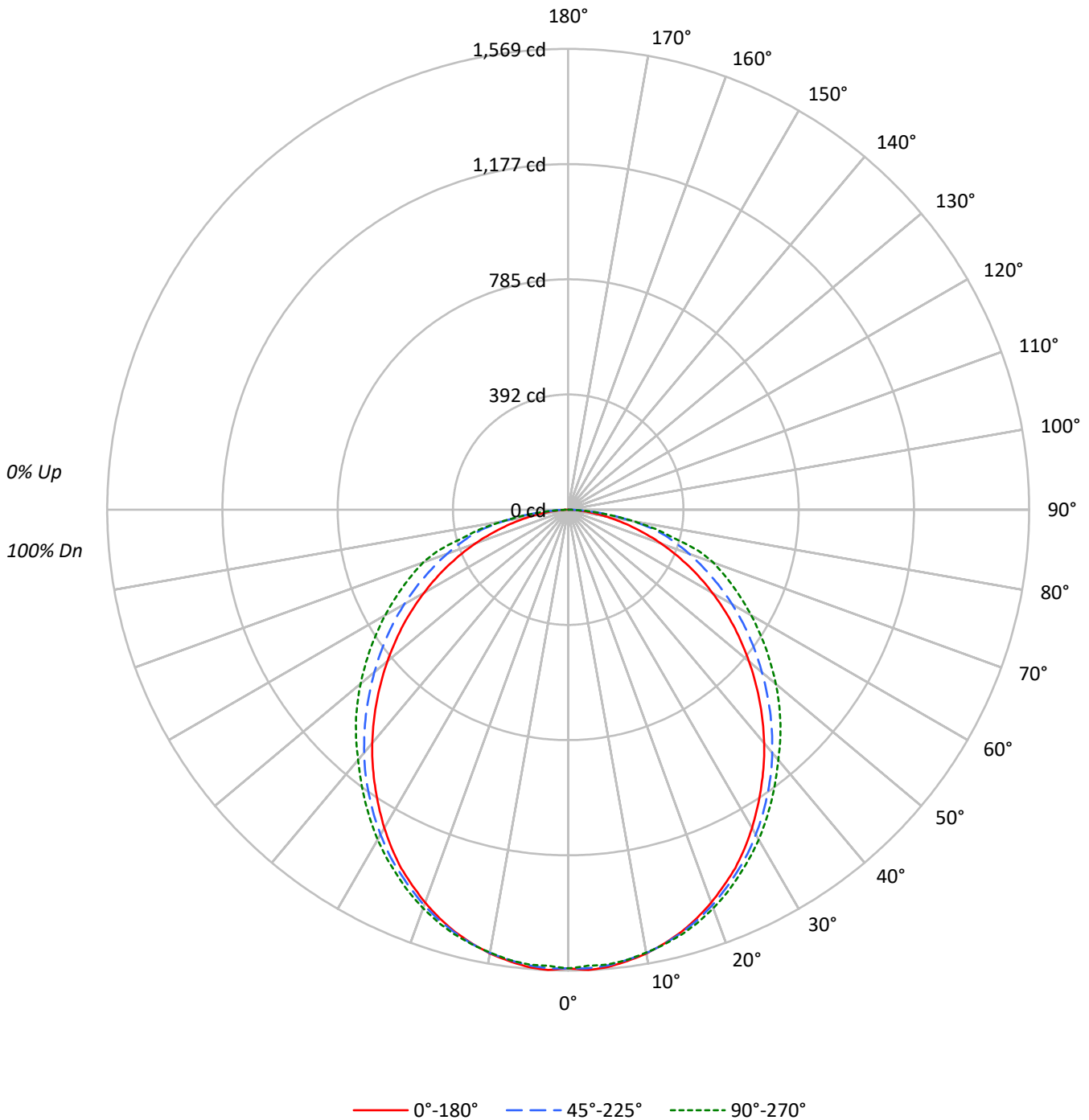
Input Watts (W): 32.364  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2101	2101	2101
5°	2111	2103	2099
10°	2096	2094	2092
15°	2073	2077	2085
20°	2038	2053	2067
25°	1998	2020	2041
30°	1944	1984	2016
35°	1883	1942	1982
40°	1822	1898	1953
45°	1753	1849	1944
50°	1682	1802	1932
55°	1609	1764	1926
60°	1526	1734	1935
65°	1435	1713	1974
70°	1321	1722	2066
75°	1171	1783	1925
80°	979	1690	1735
85°	732	1351	1241



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.6	3.4
10°-20°	419.8	9.7
20°-30°	625.7	14.5
30°-40°	736.5	17.1
40°-50°	748.5	17.4
50°-60°	672.9	15.6
60°-70°	531.6	12.3
70°-80°	337.3	7.8
80°-90°	93.1	2.2
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°	1193.1	27.7
0°-40°	1929.6	44.7
0°-60°	3351.0	77.7
0°-90°	4313.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4313.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1561	1561	1561	1561	1561	
5°	1563	1550	1557	1554	1554	148
15°	1488	1481	1491	1495	1497	419
25°	1346	1345	1360	1369	1375	619
35°	1147	1154	1182	1195	1207	717
45°	921	934	972	1000	1022	711
55°	686	703	752	801	821	613
65°	451	474	538	597	620	446
75°	225	264	343	373	370	240
85°	47	82	88	80	80	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1561.4	1561.4	1561.4	1561.4	1561.4
2.5°	1568.6	1557.1	1562.8	1560.0	1554.2
5°	1562.8	1549.9	1557.1	1554.2	1554.2
7.5°	1549.9	1539.9	1545.6	1544.2	1545.6
10°	1534.1	1524.1	1532.7	1532.7	1531.2
12.5°	1512.6	1504.0	1514.0	1514.0	1515.5
15°	1488.2	1481.0	1491.1	1495.4	1496.8
17.5°	1458.1	1450.9	1463.8	1468.1	1472.4
20°	1423.6	1420.7	1433.7	1438.0	1443.7
22.5°	1384.9	1384.9	1397.8	1403.5	1412.1
25°	1346.1	1344.7	1360.5	1369.1	1374.8
27.5°	1300.2	1301.6	1321.7	1330.3	1337.5
30°	1251.4	1254.3	1277.2	1287.3	1297.3
32.5°	1199.7	1205.5	1231.3	1242.8	1252.8
35°	1146.6	1153.8	1182.5	1195.4	1206.9
37.5°	1093.5	1103.6	1133.7	1146.6	1159.6
40°	1037.6	1046.2	1080.6	1096.4	1112.2
42.5°	980.2	991.7	1026.1	1049.1	1067.7
45°	921.3	934.2	971.6	1000.3	1021.8
47.5°	862.5	879.7	915.6	954.3	973.0
50°	803.7	820.9	861.1	904.1	922.8
52.5°	743.4	760.6	806.5	851.0	871.1
55°	686.0	703.2	752.0	800.8	820.9
57.5°	625.7	644.4	698.9	749.1	769.2
60°	566.9	585.5	644.4	697.5	719.0
62.5°	509.5	529.6	591.3	647.2	668.8
65°	450.6	473.6	538.2	597.0	620.0
67.5°	393.2	419.0	486.5	548.2	572.6
70°	335.8	365.9	437.7	500.8	525.2
72.5°	279.8	312.9	388.9	452.1	465.0
75°	225.3	264.1	343.0	373.1	370.3
77.5°	173.6	216.7	291.3	297.1	305.7
80°	126.3	173.6	218.1	229.6	223.9
82.5°	83.2	130.6	156.4	150.7	149.3
85°	47.4	81.8	87.5	80.4	80.4
87.5°	20.1	33.0	28.7	21.5	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)