

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: P260643

Luminaire Tested: **24CZ-LD5-45-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260643
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-45-UNV-L93050-W2A1-U-3500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED AT 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3812.2 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

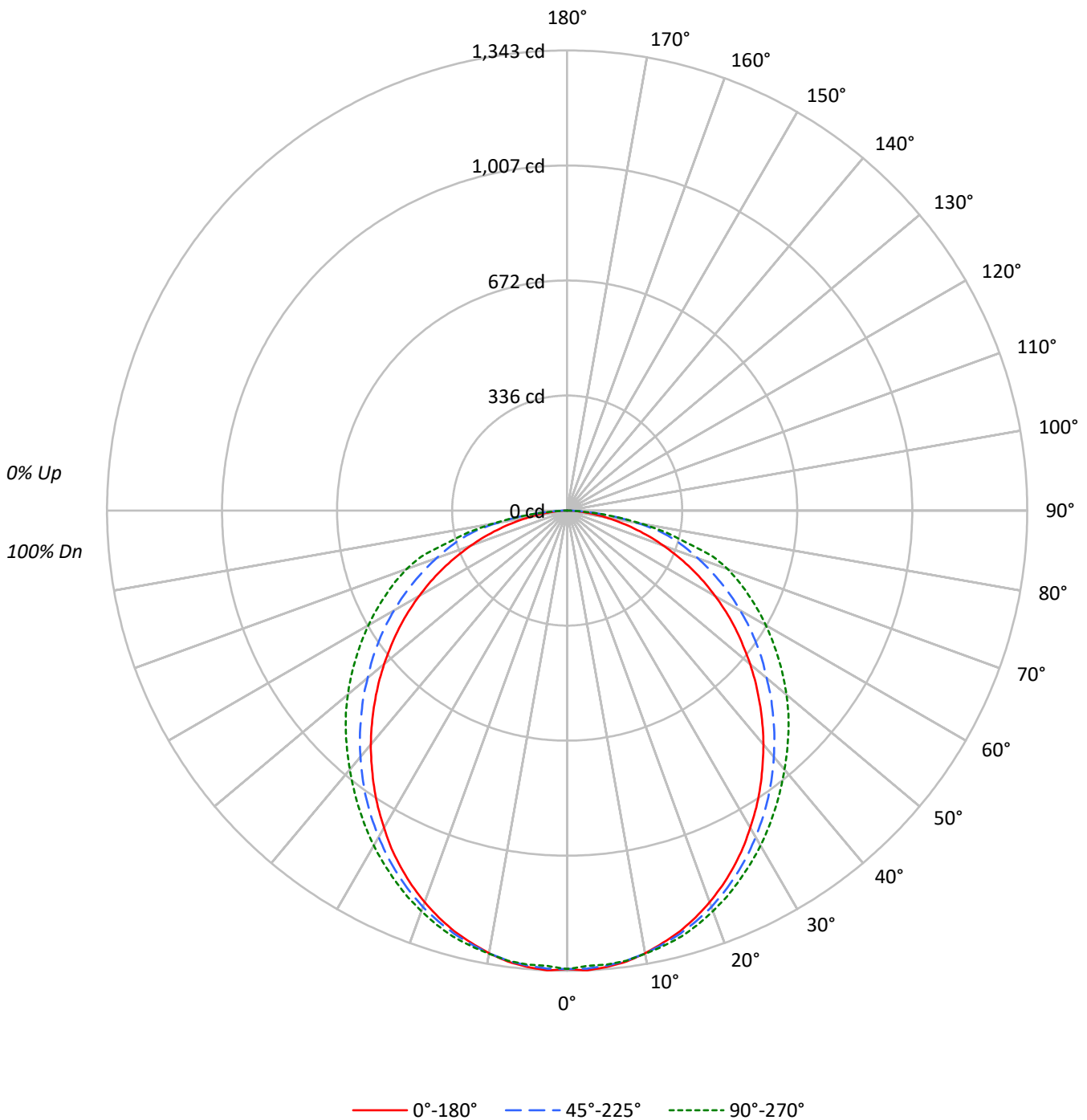
Input Watts (W): 32.031246
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1800	1800	1800
5°	1805	1800	1796
10°	1792	1792	1794
15°	1771	1780	1793
20°	1742	1762	1781
25°	1705	1738	1767
30°	1661	1709	1754
35°	1614	1681	1741
40°	1566	1648	1733
45°	1513	1617	1739
50°	1459	1590	1749
55°	1405	1580	1767
60°	1342	1570	1802
65°	1272	1571	1862
70°	1176	1597	1961
75°	1052	1669	1866
80°	880	1598	1709
85°	665	1229	1169



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.4	3.3
10°-20°	359.8	9.4
20°-30°	537.9	14.1
30°-40°	638.1	16.7
40°-50°	656.8	17.2
50°-60°	602.5	15.8
60°-70°	487.2	12.8
70°-80°	316.2	8.3
80°-90°	87.2	2.3
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°	1024.2	26.9
0°-40°	1662.3	43.6
0°-60°	2921.7	76.6
0°-90°	3812.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3812.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1338	1338	1338	1338	1338	
5°	1337	1328	1333	1331	1330	127
15°	1271	1266	1278	1283	1287	358
25°	1149	1150	1171	1181	1190	529
35°	983	991	1023	1046	1060	615
45°	795	808	850	890	914	613
55°	599	617	674	728	753	535
65°	399	423	493	559	585	395
75°	202	240	321	359	359	215
85°	43	73	80	77	76	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1337.9	1337.9	1337.9	1337.9	1337.9
2.5°	1343.1	1332.7	1337.9	1336.6	1330.1
5°	1336.6	1327.5	1332.7	1331.4	1330.1
7.5°	1327.5	1318.3	1324.8	1323.5	1324.8
10°	1311.8	1304.0	1311.8	1313.1	1313.1
12.5°	1292.2	1285.7	1296.1	1298.7	1301.4
15°	1271.3	1266.1	1277.9	1283.1	1287.0
17.5°	1245.2	1241.3	1255.7	1262.2	1267.4
20°	1216.5	1215.2	1230.9	1237.4	1243.9
22.5°	1183.9	1183.9	1202.2	1210.0	1219.1
25°	1148.6	1149.9	1170.8	1181.3	1190.4
27.5°	1110.8	1112.1	1136.9	1149.9	1160.4
30°	1069.0	1074.2	1100.3	1117.3	1129.1
32.5°	1027.2	1033.8	1062.5	1082.1	1095.1
35°	982.9	990.7	1023.3	1045.5	1059.9
37.5°	937.2	946.3	981.6	1006.4	1023.3
40°	891.5	901.9	938.5	967.2	986.8
42.5°	843.2	855.0	895.4	929.4	950.2
45°	794.9	808.0	849.7	890.2	913.7
47.5°	746.6	762.3	806.7	851.0	875.8
50°	697.0	712.7	759.7	810.6	835.4
52.5°	647.4	665.7	717.9	770.1	794.9
55°	599.1	617.4	673.5	728.3	753.1
57.5°	549.5	567.8	629.1	686.6	711.4
60°	498.6	519.5	583.5	642.2	669.6
62.5°	449.0	471.2	539.1	601.7	627.8
65°	399.4	422.9	493.4	558.7	584.8
67.5°	348.5	375.9	449.0	515.6	543.0
70°	298.9	328.9	405.9	472.5	498.6
72.5°	250.6	283.2	362.9	430.7	446.4
75°	202.3	240.2	321.1	358.9	358.9
77.5°	156.6	198.4	274.1	288.5	296.3
80°	113.6	159.2	206.2	223.2	220.6
82.5°	75.7	121.4	147.5	147.5	143.6
85°	43.1	73.1	79.6	77.0	75.7
87.5°	18.3	27.4	24.8	19.6	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)