

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: P261063

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P261063
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-L93050-W2A1-U-3500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED AT 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3888.5 lumens
Efficiency: N/A
Efficacy: 121.4 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

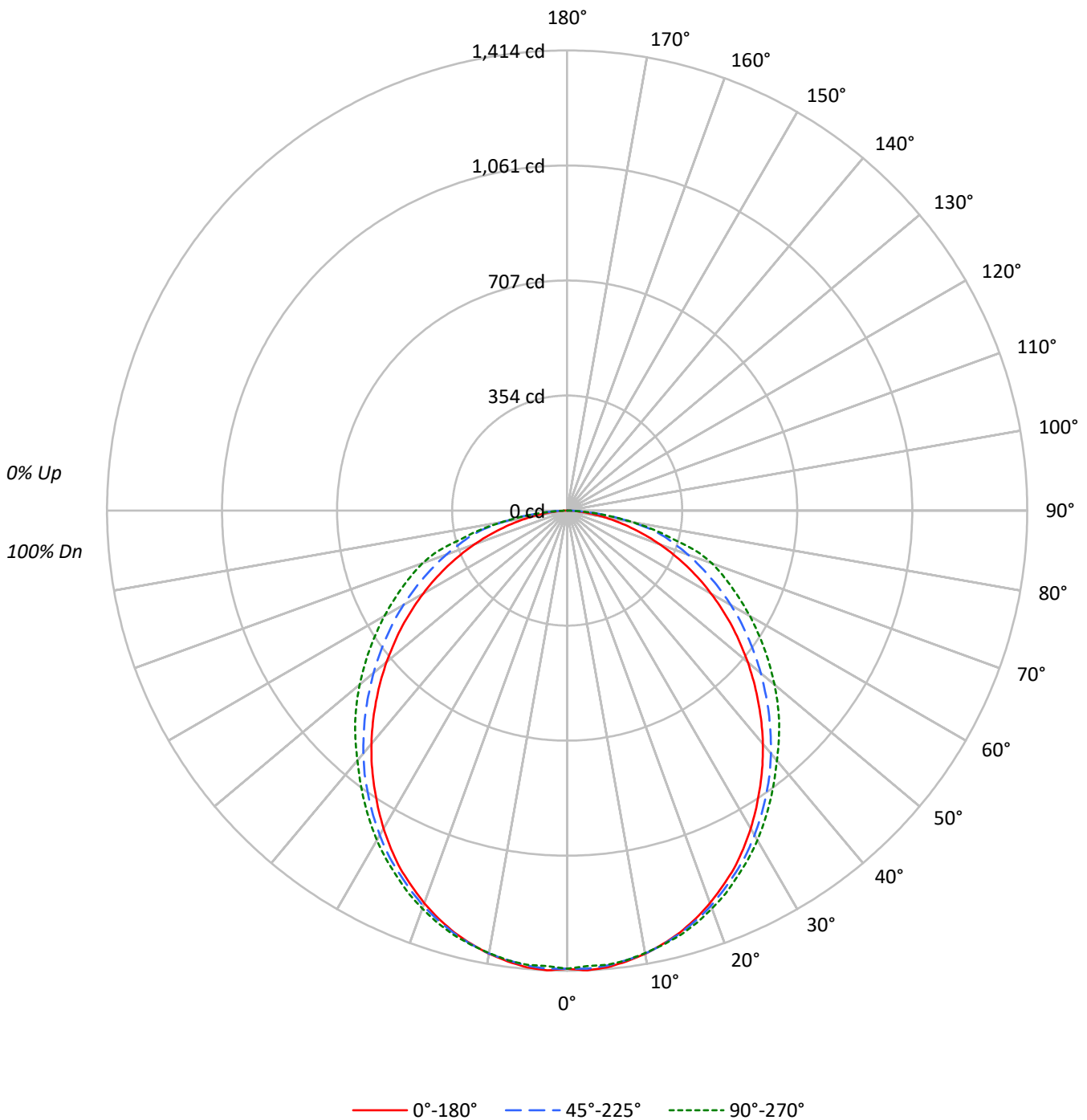
Input Watts (W): 32.031246
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1894	1894	1894
5°	1903	1896	1893
10°	1890	1888	1886
15°	1869	1873	1880
20°	1838	1851	1864
25°	1802	1821	1840
30°	1753	1789	1817
35°	1698	1751	1787
40°	1643	1711	1761
45°	1581	1667	1753
50°	1517	1625	1741
55°	1451	1590	1736
60°	1375	1563	1744
65°	1294	1545	1779
70°	1191	1552	1863
75°	1056	1607	1735
80°	883	1524	1564
85°	659	1218	1119



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.1	3.4
10°-20°	378.5	9.7
20°-30°	564.1	14.5
30°-40°	664.0	17.1
40°-50°	674.8	17.4
50°-60°	606.7	15.6
60°-70°	479.3	12.3
70°-80°	304.1	7.8
80°-90°	83.9	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°	1075.7	27.7
0°-40°	1739.7	44.7
0°-60°	3021.2	77.7
0°-90°	3888.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3888.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1408	1408	1408	1408	1408	
5°	1409	1397	1404	1401	1401	134
15°	1342	1335	1344	1348	1350	378
25°	1214	1212	1227	1234	1240	558
35°	1034	1040	1066	1078	1088	647
45°	831	842	876	902	921	641
55°	618	634	678	722	740	552
65°	406	427	485	538	559	402
75°	203	238	309	336	334	216
85°	43	74	79	72	72	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1407.7	1407.7	1407.7	1407.7	1407.7
2.5°	1414.2	1403.8	1409.0	1406.4	1401.2
5°	1409.0	1397.4	1403.8	1401.2	1401.2
7.5°	1397.4	1388.3	1393.5	1392.2	1393.5
10°	1383.1	1374.1	1381.8	1381.8	1380.5
12.5°	1363.7	1356.0	1365.0	1365.0	1366.3
15°	1341.7	1335.3	1344.3	1348.2	1349.5
17.5°	1314.5	1308.1	1319.7	1323.6	1327.5
20°	1283.5	1280.9	1292.6	1296.4	1301.6
22.5°	1248.6	1248.6	1260.2	1265.4	1273.1
25°	1213.6	1212.3	1226.6	1234.3	1239.5
27.5°	1172.2	1173.5	1191.6	1199.4	1205.9
30°	1128.2	1130.8	1151.5	1160.6	1169.6
32.5°	1081.7	1086.8	1110.1	1120.5	1129.5
35°	1033.8	1040.3	1066.1	1077.8	1088.1
37.5°	985.9	995.0	1022.1	1033.8	1045.4
40°	935.5	943.2	974.3	988.5	1002.7
42.5°	883.7	894.0	925.1	945.8	962.6
45°	830.7	842.3	875.9	901.8	921.2
47.5°	777.6	793.1	825.5	860.4	877.2
50°	724.6	740.1	776.3	815.1	831.9
52.5°	670.2	685.7	727.1	767.3	785.4
55°	618.5	634.0	678.0	722.0	740.1
57.5°	564.1	580.9	630.1	675.4	693.5
60°	511.1	527.9	580.9	628.8	648.2
62.5°	459.3	477.4	533.1	583.5	602.9
65°	406.3	427.0	485.2	538.2	558.9
67.5°	354.5	377.8	438.6	494.2	516.2
70°	302.8	329.9	394.6	451.6	473.5
72.5°	252.3	282.1	350.6	407.6	419.2
75°	203.1	238.1	309.2	336.4	333.8
77.5°	156.6	195.4	262.7	267.8	275.6
80°	113.9	156.6	196.7	207.0	201.8
82.5°	75.0	117.7	141.0	135.9	134.6
85°	42.7	73.7	78.9	72.5	72.5
87.5°	18.1	29.8	25.9	19.4	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)