

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: P230043

Luminaire Tested: **24CZ-LD5-45-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230043
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-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4376.0 lumens
Efficiency: N/A
Efficacy: 122.6 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

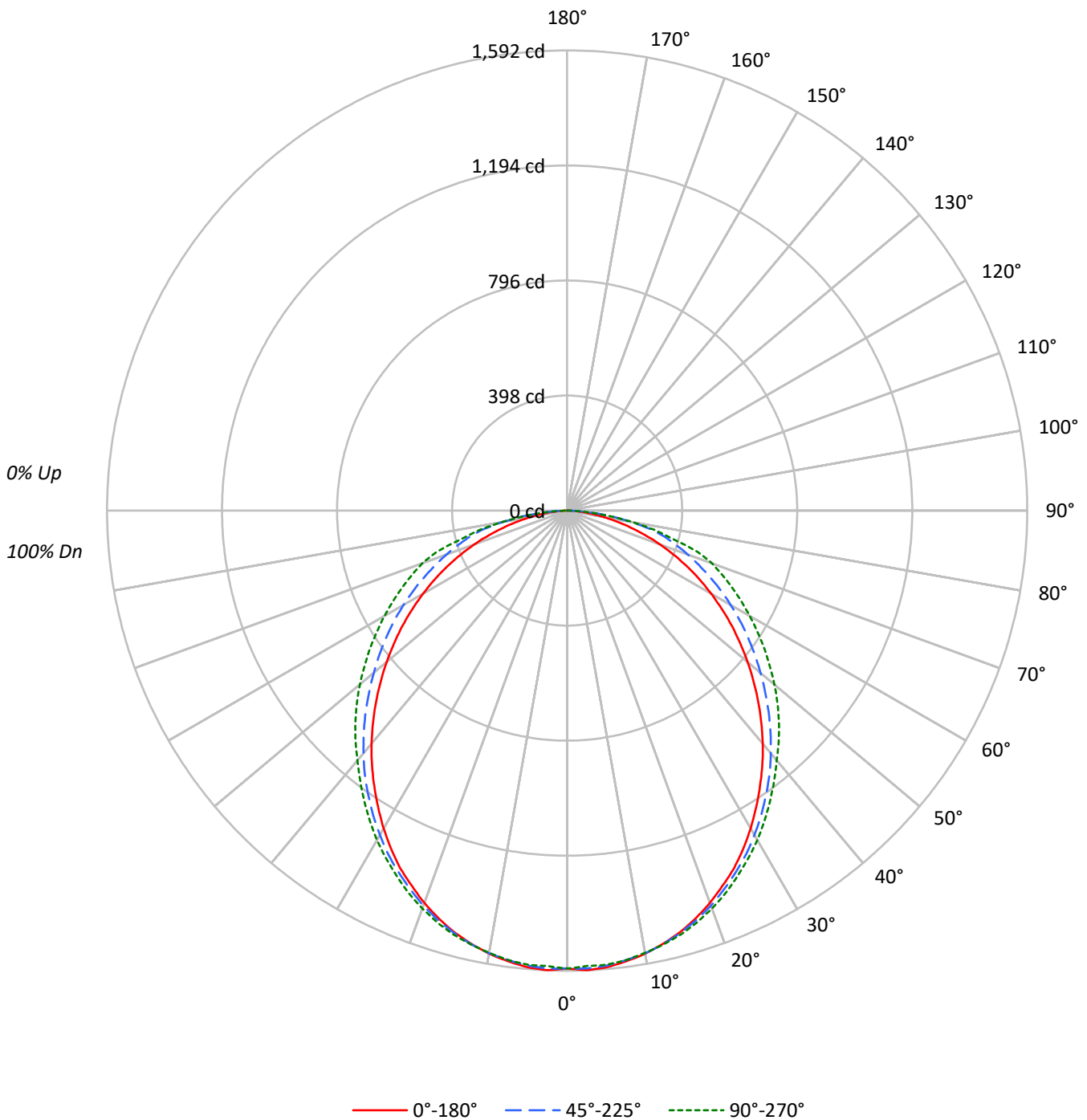
Input Watts (W): 35.69
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2132	2132	2132
5°	2142	2134	2130
10°	2127	2125	2123
15°	2103	2107	2115
20°	2068	2083	2097
25°	2028	2049	2071
30°	1973	2013	2045
35°	1911	1971	2011
40°	1849	1926	1982
45°	1779	1876	1973
50°	1707	1829	1960
55°	1633	1790	1954
60°	1548	1759	1963
65°	1456	1738	2003
70°	1340	1747	2096
75°	1188	1809	1953
80°	993	1715	1760
85°	741	1371	1258



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.8	3.4
10°-20°	426.0	9.7
20°-30°	634.8	14.5
30°-40°	747.3	17.1
40°-50°	759.4	17.4
50°-60°	682.8	15.6
60°-70°	539.4	12.3
70°-80°	342.2	7.8
80°-90°	94.4	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°	1210.6	27.7
0°-40°	1957.8	44.7
0°-60°	3400.0	77.7
0°-90°	4376.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4376.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1584	1584	1584	1584	1584	
5°	1586	1572	1580	1577	1577	150
15°	1510	1503	1513	1517	1519	425
25°	1366	1364	1380	1389	1395	628
35°	1163	1171	1200	1213	1224	728
45°	935	948	986	1015	1037	721
55°	696	714	763	812	833	622
65°	457	480	546	606	629	453
75°	229	268	348	379	376	243
85°	48	83	89	82	82	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1584.2	1584.2	1584.2	1584.2	1584.2
2.5°	1591.5	1579.8	1585.6	1582.7	1576.9
5°	1585.6	1572.5	1579.8	1576.9	1576.9
7.5°	1572.5	1562.4	1568.2	1566.7	1568.2
10°	1556.5	1546.3	1555.1	1555.1	1553.6
12.5°	1534.7	1526.0	1536.1	1536.1	1537.6
15°	1509.9	1502.7	1512.8	1517.2	1518.7
17.5°	1479.4	1472.1	1485.2	1489.5	1493.9
20°	1444.4	1441.5	1454.6	1459.0	1464.8
22.5°	1405.1	1405.1	1418.2	1424.0	1432.8
25°	1365.8	1364.3	1380.3	1389.1	1394.9
27.5°	1319.2	1320.6	1341.0	1349.8	1357.0
30°	1269.7	1272.6	1295.9	1306.1	1316.3
32.5°	1217.3	1223.1	1249.3	1260.9	1271.1
35°	1163.4	1170.7	1199.8	1212.9	1224.5
37.5°	1109.5	1119.7	1150.3	1163.4	1176.5
40°	1052.7	1061.5	1096.4	1112.4	1128.4
42.5°	994.5	1006.1	1041.1	1064.4	1083.3
45°	934.8	947.9	985.8	1014.9	1036.7
47.5°	875.1	892.6	929.0	968.3	987.2
50°	815.4	832.9	873.6	917.3	936.2
52.5°	754.2	771.7	818.3	863.4	883.8
55°	696.0	713.5	763.0	812.5	832.9
57.5°	634.8	653.8	709.1	760.1	780.4
60°	575.1	594.1	653.8	707.6	729.5
62.5°	516.9	537.3	599.9	656.7	678.5
65°	457.2	480.5	546.0	605.7	629.0
67.5°	399.0	425.2	493.6	556.2	581.0
70°	340.7	371.3	444.1	508.2	532.9
72.5°	283.9	317.4	394.6	458.7	471.8
75°	228.6	267.9	348.0	378.6	375.7
77.5°	176.2	219.9	295.6	301.4	310.1
80°	128.1	176.2	221.3	233.0	227.1
82.5°	84.5	132.5	158.7	152.9	151.4
85°	48.0	83.0	88.8	81.5	81.5
87.5°	20.4	33.5	29.1	21.8	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)