

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: P229964

Luminaire Tested: **24CZ-LD5-40-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229964
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-LD5-40-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3284.0 lumens
Efficiency: N/A
Efficacy: 113.1 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

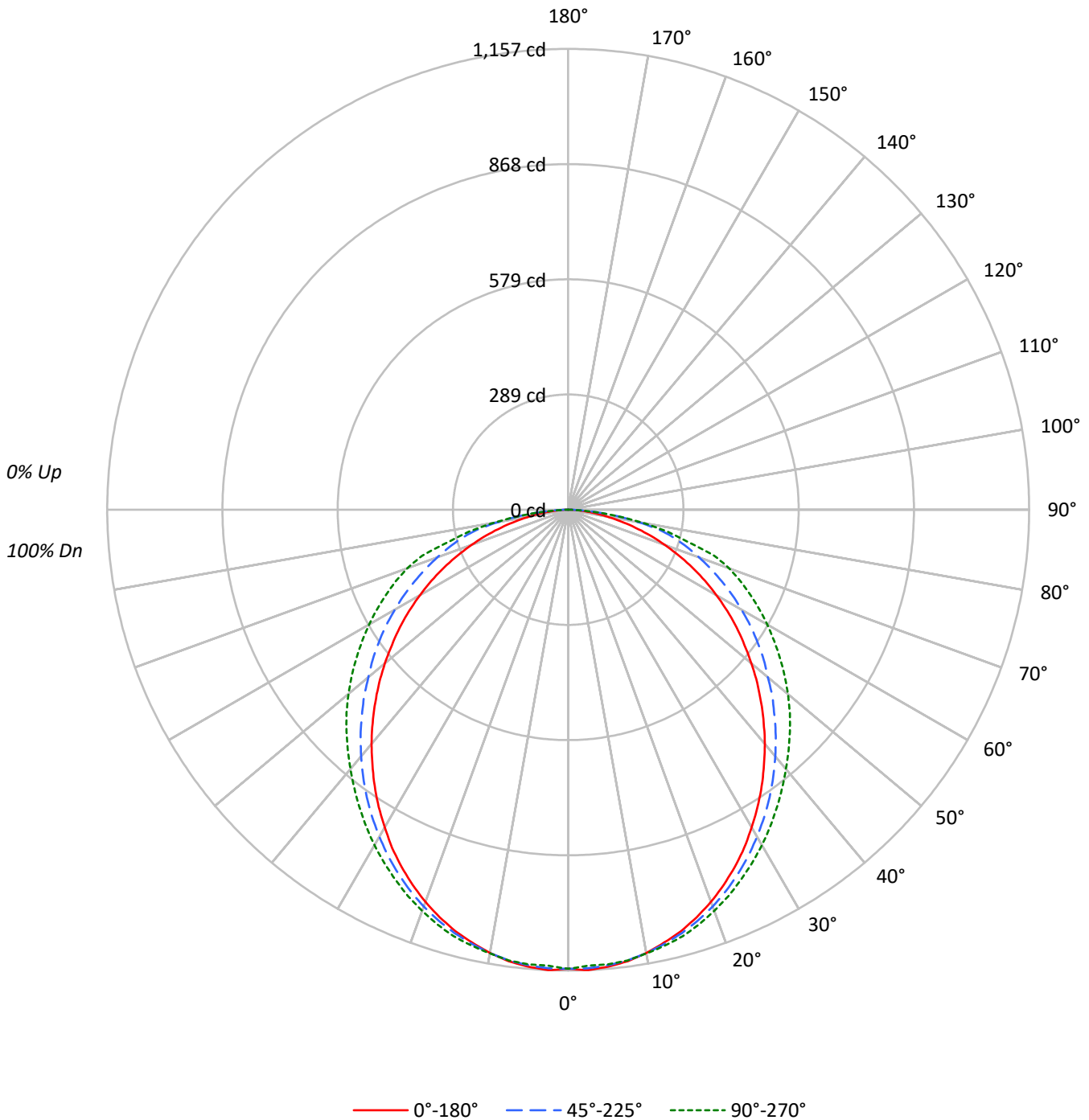
Input Watts (W): 29.04
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1551	1551	1551
5°	1555	1551	1548
10°	1544	1544	1545
15°	1526	1533	1544
20°	1500	1518	1534
25°	1469	1497	1522
30°	1431	1473	1511
35°	1391	1448	1500
40°	1349	1420	1493
45°	1303	1393	1498
50°	1257	1370	1506
55°	1211	1361	1522
60°	1156	1352	1552
65°	1096	1353	1604
70°	1013	1376	1690
75°	906	1438	1607
80°	758	1377	1472
85°	573	1059	1007



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.9	3.3
10°-20°	310.0	9.4
20°-30°	463.4	14.1
30°-40°	549.7	16.7
40°-50°	565.8	17.2
50°-60°	519.0	15.8
60°-70°	419.7	12.8
70°-80°	272.4	8.3
80°-90°	75.1	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°	882.3	26.9
0°-40°	1432.0	43.6
0°-60°	2516.8	76.6
0°-90°	3284.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3284.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1151	1144	1148	1147	1146	109
15°	1095	1091	1101	1105	1109	309
25°	990	991	1009	1018	1026	455
35°	847	853	882	901	913	529
45°	685	696	732	767	787	528
55°	516	532	580	627	649	461
65°	344	364	425	481	504	340
75°	174	207	277	309	309	185
85°	37	63	69	66	65	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1152.5	1152.5	1152.5	1152.5	1152.5
2.5°	1157.0	1148.0	1152.5	1151.4	1145.8
5°	1151.4	1143.5	1148.0	1146.9	1145.8
7.5°	1143.5	1135.6	1141.3	1140.1	1141.3
10°	1130.0	1123.3	1130.0	1131.1	1131.1
12.5°	1113.2	1107.5	1116.5	1118.8	1121.0
15°	1095.2	1090.7	1100.8	1105.3	1108.7
17.5°	1072.7	1069.3	1081.7	1087.3	1091.8
20°	1047.9	1046.8	1060.3	1065.9	1071.6
22.5°	1019.8	1019.8	1035.6	1042.3	1050.2
25°	989.5	990.6	1008.6	1017.6	1025.5
27.5°	956.9	958.0	979.4	990.6	999.6
30°	920.9	925.4	947.9	962.5	972.6
32.5°	884.9	890.5	915.3	932.1	943.4
35°	846.7	853.4	881.5	900.6	913.0
37.5°	807.3	815.2	845.6	866.9	881.5
40°	768.0	777.0	808.4	833.2	850.0
42.5°	726.4	736.5	771.3	800.6	818.6
45°	684.8	696.0	732.0	766.8	787.1
47.5°	643.2	656.7	694.9	733.1	754.5
50°	600.4	613.9	654.4	698.3	719.6
52.5°	557.7	573.4	618.4	663.4	684.8
55°	516.1	531.8	580.2	627.4	648.8
57.5°	473.4	489.1	542.0	591.4	612.8
60°	429.5	447.5	502.6	553.2	576.8
62.5°	386.8	405.9	464.4	518.3	540.8
65°	344.1	364.3	425.0	481.2	503.7
67.5°	300.2	323.8	386.8	444.1	467.8
70°	257.5	283.3	349.7	407.0	429.5
72.5°	215.9	244.0	312.6	371.1	384.5
75°	174.3	206.9	276.6	309.2	309.2
77.5°	134.9	170.9	236.1	248.5	255.2
80°	97.8	137.2	177.7	192.3	190.0
82.5°	65.2	104.6	127.1	127.1	123.7
85°	37.1	63.0	68.6	66.3	65.2
87.5°	15.7	23.6	21.4	16.9	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)