

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: P230072

Luminaire Tested: **24CZ-LD5-35SE-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230072
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-LD5-35SE-S-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2983.0 lumens
Efficiency: N/A
Efficacy: 104.4 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

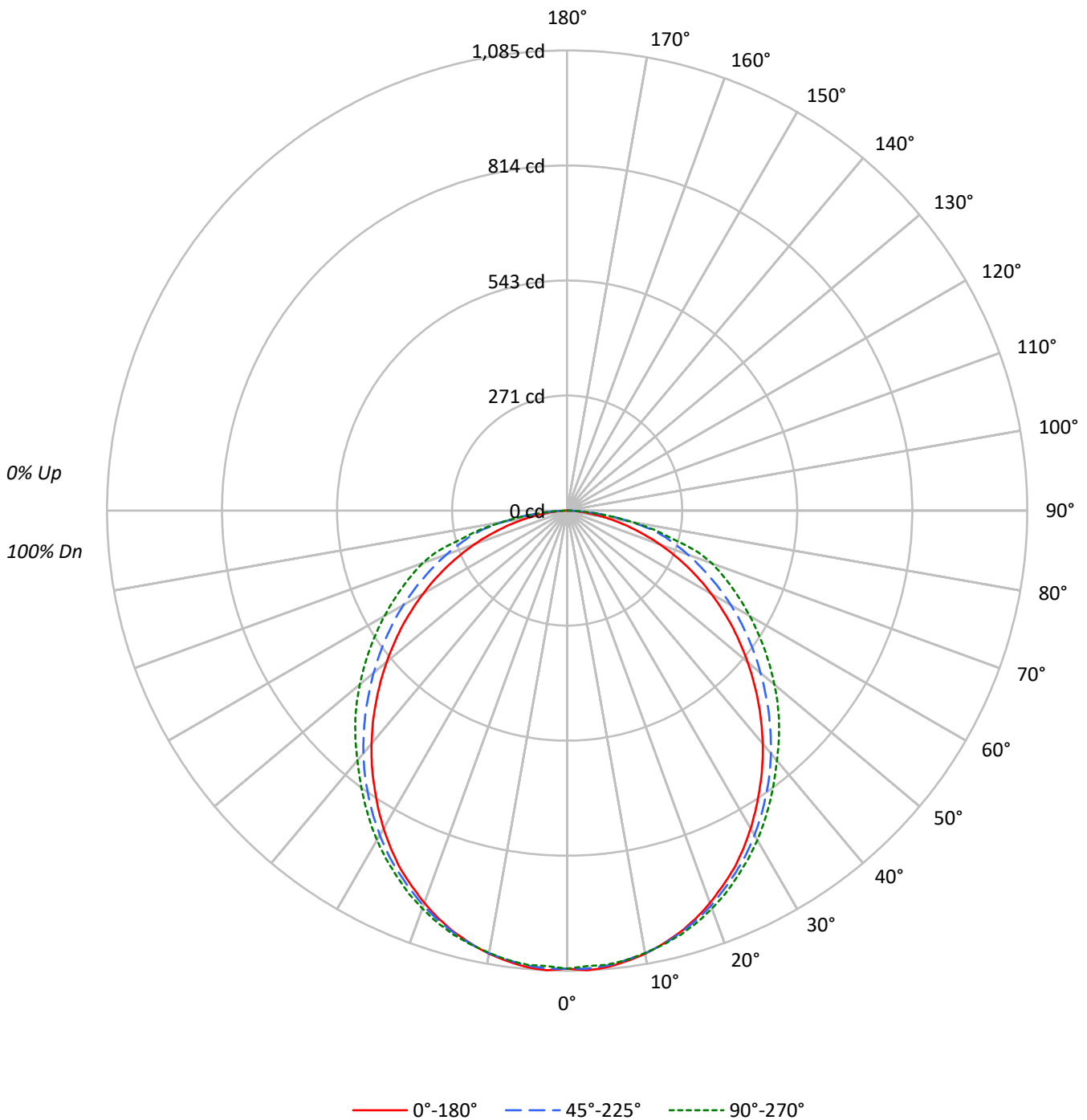
Input Watts (W): 28.57
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1453	1453	1453
5°	1460	1454	1452
10°	1450	1448	1447
15°	1434	1437	1442
20°	1410	1420	1430
25°	1382	1397	1412
30°	1345	1372	1394
35°	1303	1343	1371
40°	1260	1313	1351
45°	1212	1279	1345
50°	1163	1247	1336
55°	1113	1220	1332
60°	1055	1199	1338
65°	992	1185	1365
70°	914	1191	1429
75°	810	1233	1331
80°	676	1169	1199
85°	506	934	858



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.1	3.4
10°-20°	290.4	9.7
20°-30°	432.7	14.5
30°-40°	509.4	17.1
40°-50°	517.7	17.4
50°-60°	465.4	15.6
60°-70°	367.7	12.3
70°-80°	233.3	7.8
80°-90°	64.4	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°	825.2	27.7
0°-40°	1334.6	44.7
0°-60°	2317.7	77.7
0°-90°	2983.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2983.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1080	1080	1080	1080	1080	
5°	1081	1072	1077	1075	1075	102
15°	1029	1024	1031	1034	1035	290
25°	931	930	941	947	951	428
35°	793	798	818	827	835	496
45°	637	646	672	692	707	492
55°	474	486	520	554	568	424
65°	312	328	372	413	429	309
75°	156	183	237	258	256	166
85°	33	57	60	56	56	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1079.9	1079.9	1079.9	1079.9	1079.9
2.5°	1084.9	1076.9	1080.9	1078.9	1074.9
5°	1080.9	1072.0	1076.9	1074.9	1074.9
7.5°	1072.0	1065.0	1069.0	1068.0	1069.0
10°	1061.0	1054.1	1060.0	1060.0	1059.1
12.5°	1046.2	1040.2	1047.1	1047.1	1048.1
15°	1029.3	1024.3	1031.3	1034.2	1035.2
17.5°	1008.4	1003.5	1012.4	1015.4	1018.4
20°	984.6	982.6	991.6	994.5	998.5
22.5°	957.8	957.8	966.7	970.7	976.7
25°	931.0	930.0	940.9	946.9	950.9
27.5°	899.3	900.2	914.1	920.1	925.1
30°	865.5	867.5	883.4	890.3	897.3
32.5°	829.8	833.7	851.6	859.6	866.5
35°	793.1	798.0	817.9	826.8	834.7
37.5°	756.3	763.3	784.1	793.1	802.0
40°	717.6	723.6	747.4	758.3	769.2
42.5°	677.9	685.9	709.7	725.6	738.5
45°	637.2	646.2	672.0	691.8	706.7
47.5°	596.5	608.4	633.3	660.0	673.0
50°	555.8	567.7	595.5	625.3	638.2
52.5°	514.1	526.1	557.8	588.6	602.5
55°	474.4	486.4	520.1	553.8	567.7
57.5°	432.8	445.7	483.4	518.1	532.0
60°	392.1	405.0	445.7	482.4	497.3
62.5°	352.4	366.3	408.9	447.6	462.5
65°	311.7	327.5	372.2	412.9	428.8
67.5°	272.0	289.8	336.5	379.2	396.0
70°	232.3	253.1	302.7	346.4	363.3
72.5°	193.5	216.4	269.0	312.7	321.6
75°	155.8	182.6	237.2	258.1	256.1
77.5°	120.1	149.9	201.5	205.5	211.4
80°	87.3	120.1	150.9	158.8	154.8
82.5°	57.6	90.3	108.2	104.2	103.2
85°	32.8	56.6	60.5	55.6	55.6
87.5°	13.9	22.8	19.9	14.9	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)