

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: P230473

Luminaire Tested: **24CZ-LD5-45-RDP-UNV-L935-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230473  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25696)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-45-RDP-UNV-L935-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH RDP LENS  
Light Source: (168) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2533.9 lumens  
Efficiency: N/A  
Efficacy: 71.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

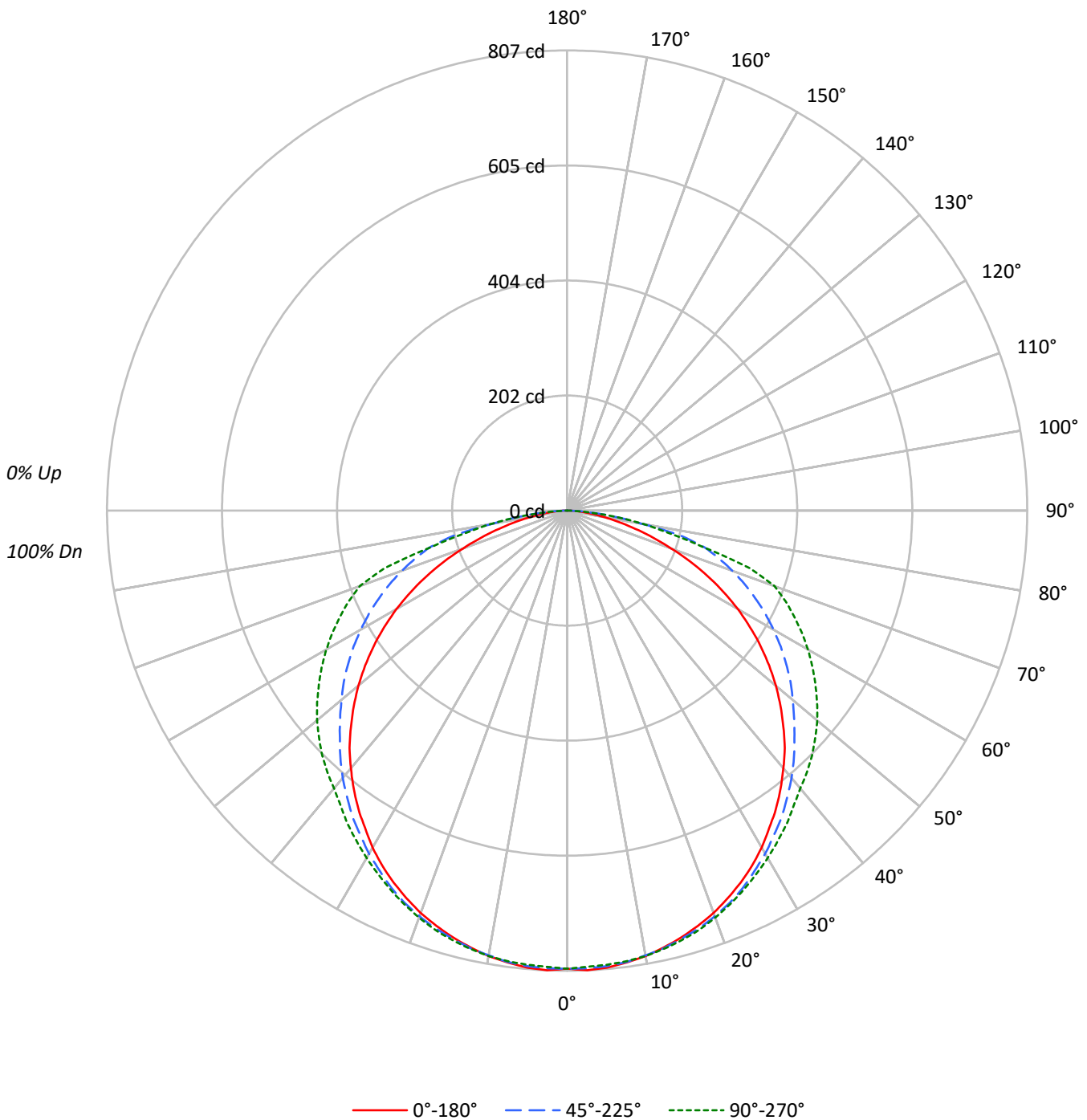
Input Watts (W): 35.69  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	98	94	105	101	97	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	61	73	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51		62	55	50		60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	34		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	29	27
9	55	41	33	27	53	41	32	27	39	32	27		38	32	27		37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24		35	29	24		35	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1081	1081	1081
5°	1087	1083	1080
10°	1084	1082	1084
15°	1079	1082	1086
20°	1075	1084	1088
25°	1068	1083	1089
30°	1060	1079	1093
35°	1049	1078	1102
40°	1036	1076	1117
45°	1020	1073	1156
50°	1000	1081	1198
55°	971	1100	1247
60°	930	1125	1312
65°	866	1160	1398
70°	766	1212	1521
75°	642	1297	1277
80°	512	1024	1063
85°	404	693	636



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.2	3.0
10°-20°	219.3	8.7
20°-30°	334.9	13.2
30°-40°	409.4	16.2
40°-50°	438.3	17.3
50°-60°	420.4	16.6
60°-70°	355.0	14.0
70°-80°	226.9	9.0
80°-90°	53.7	2.1
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°	630.4	24.9
0°-40°	1039.8	41.0
0°-60°	1898.5	74.9
0°-90°	2533.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2533.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	803	803	803	803	803	
5°	804	800	802	801	800	76
15°	775	772	777	780	780	219
25°	720	718	730	732	733	332
35°	639	644	656	665	671	399
45°	536	545	564	590	607	414
55°	414	428	469	511	531	370
65°	272	298	364	415	439	268
75°	124	176	250	254	246	133
85°	26	44	45	44	41	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	803.3	803.3	803.3	803.3	803.3
2.5°	807.0	802.0	803.3	803.3	800.8
5°	804.5	799.5	802.0	800.8	799.5
7.5°	799.5	795.8	798.3	798.3	797.0
10°	793.3	789.5	792.0	793.3	793.3
12.5°	784.6	782.1	785.8	785.8	787.1
15°	774.6	772.1	777.1	779.6	779.6
17.5°	763.4	762.1	768.3	769.6	770.8
20°	750.9	749.6	757.1	757.1	759.6
22.5°	735.9	734.7	744.6	744.6	747.1
25°	719.7	718.5	729.7	732.2	733.4
27.5°	702.2	701.0	712.2	716.0	718.5
30°	682.3	682.3	694.8	699.7	703.5
32.5°	659.8	663.6	674.8	682.3	687.3
35°	638.6	643.6	656.1	664.8	671.1
37.5°	614.9	619.9	633.6	644.9	652.3
40°	590.0	596.2	612.4	624.9	636.1
42.5°	565.0	571.3	588.7	607.4	622.4
45°	536.3	545.1	563.8	590.0	607.4
47.5°	507.7	516.4	540.1	572.5	590.0
50°	477.7	487.7	516.4	553.8	572.5
52.5°	446.5	457.8	493.9	533.9	552.6
55°	414.1	427.8	469.0	511.4	531.4
57.5°	380.4	395.4	444.0	488.9	510.2
60°	345.5	364.2	417.9	465.2	487.7
62.5°	309.3	331.8	391.7	440.3	464.0
65°	271.9	298.1	364.2	415.4	439.1
67.5°	233.2	268.2	336.8	390.4	414.1
70°	194.6	235.7	308.1	363.0	386.7
72.5°	158.4	205.8	279.4	330.5	335.5
75°	123.5	175.9	249.5	254.5	245.7
77.5°	92.3	145.9	205.8	183.4	182.1
80°	66.1	117.2	132.2	136.0	137.2
82.5°	43.7	88.6	86.1	88.6	87.3
85°	26.2	43.7	44.9	43.7	41.2
87.5°	12.5	16.2	12.5	11.2	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)