

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: P277045

Luminaire Tested: **24CZ2-45HE-RDP-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277045  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45HE-RDP-UNV-L92765-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2325.5 lumens  
Efficiency: N/A  
Efficacy: 74.6 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

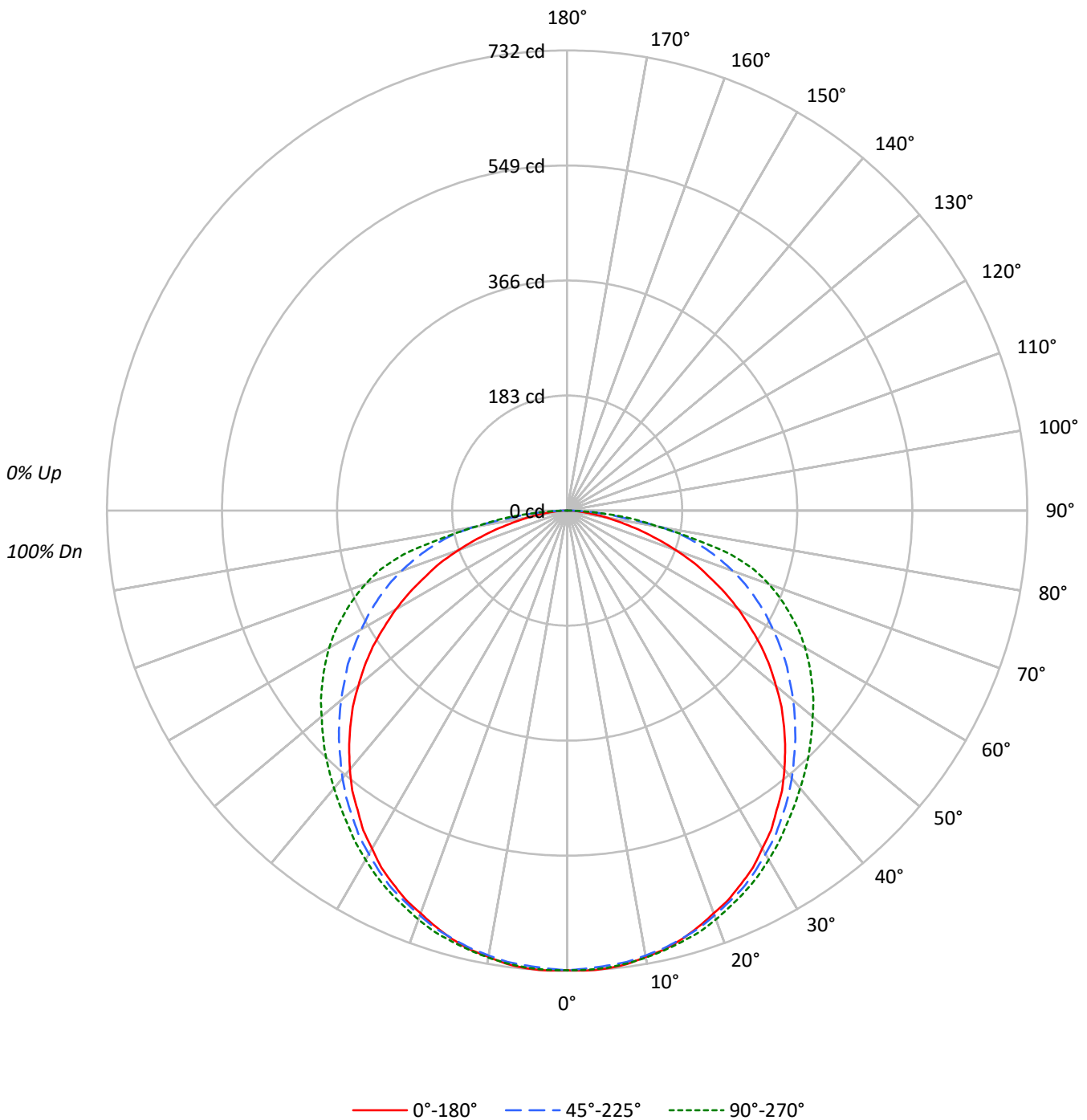
Input Watts (W): 31.155  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	984	984	984
5°	988	982	986
10°	985	982	987
15°	983	982	988
20°	976	981	991
25°	973	983	993
30°	964	980	996
35°	955	978	1000
40°	944	977	1013
45°	928	977	1036
50°	908	983	1067
55°	885	998	1115
60°	847	1018	1176
65°	793	1054	1249
70°	721	1103	1343
75°	612	1163	1403
80°	483	1171	1135
85°	357	891	997



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.4	3.0
10°-20°	199.6	8.6
20°-30°	305.3	13.1
30°-40°	373.2	16.0
40°-50°	397.8	17.1
50°-60°	380.3	16.4
60°-70°	322.2	13.9
70°-80°	216.5	9.3
80°-90°	61.1	2.6
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°	574.3	24.7
0°-40°	947.5	40.7
0°-60°	1725.7	74.2
0°-90°	2325.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2325.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	731	731	731	731	731	
5°	731	730	727	730	730	69
15°	706	706	705	710	709	199
25°	655	658	662	668	669	302
35°	581	586	595	607	609	364
45°	488	496	513	535	544	376
55°	377	391	426	459	475	336
65°	249	274	331	375	392	247
75°	118	160	224	262	270	126
85°	23	47	58	62	65	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	731.3	731.3	731.3	731.3	731.3
2.5°	732.4	732.4	729.0	731.3	731.3
5°	731.3	730.1	726.7	730.1	730.1
7.5°	727.8	726.7	724.4	727.8	726.7
10°	720.9	720.9	718.6	722.1	722.1
12.5°	715.1	714.0	712.8	717.5	716.3
15°	705.9	705.9	704.8	710.5	709.4
17.5°	694.4	695.5	696.7	701.3	702.5
20°	681.7	684.0	685.2	692.1	692.1
22.5°	670.2	671.3	673.6	680.5	680.5
25°	655.2	657.5	662.1	667.9	669.0
27.5°	640.2	641.3	647.1	655.2	656.3
30°	620.6	624.0	630.9	640.2	641.3
32.5°	603.3	606.7	614.8	624.0	626.3
35°	581.3	586.0	595.2	606.7	609.0
37.5°	561.7	565.2	576.7	589.4	592.9
40°	537.5	544.4	556.0	571.0	576.7
42.5°	513.3	520.2	534.1	553.7	560.6
45°	487.9	496.0	513.3	535.2	544.4
47.5°	462.5	471.8	491.4	516.8	527.1
50°	433.7	445.2	469.5	498.3	509.8
52.5°	406.0	419.9	446.4	478.7	493.7
55°	377.2	391.0	425.6	459.1	475.2
57.5°	344.9	363.3	401.4	439.5	456.8
60°	314.9	332.2	378.3	419.9	437.2
62.5°	282.6	305.7	355.3	399.1	416.4
65°	249.1	274.5	331.0	374.9	392.2
67.5°	219.2	246.8	306.8	350.7	368.0
70°	183.4	218.0	280.3	324.1	341.4
72.5°	150.0	188.0	252.6	295.3	311.4
75°	117.7	160.3	223.8	261.8	269.9
77.5°	87.7	132.6	193.8	209.9	204.2
80°	62.3	106.1	151.1	143.0	146.5
82.5°	40.4	80.7	93.4	106.1	109.6
85°	23.1	47.3	57.7	62.3	64.6
87.5°	10.4	17.3	23.1	23.1	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)