

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: P276826

Luminaire Tested: **24CZ2-45HE-RDP-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276826  
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-L93050-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2665.2 lumens  
Efficiency: N/A  
Efficacy: 81.4 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

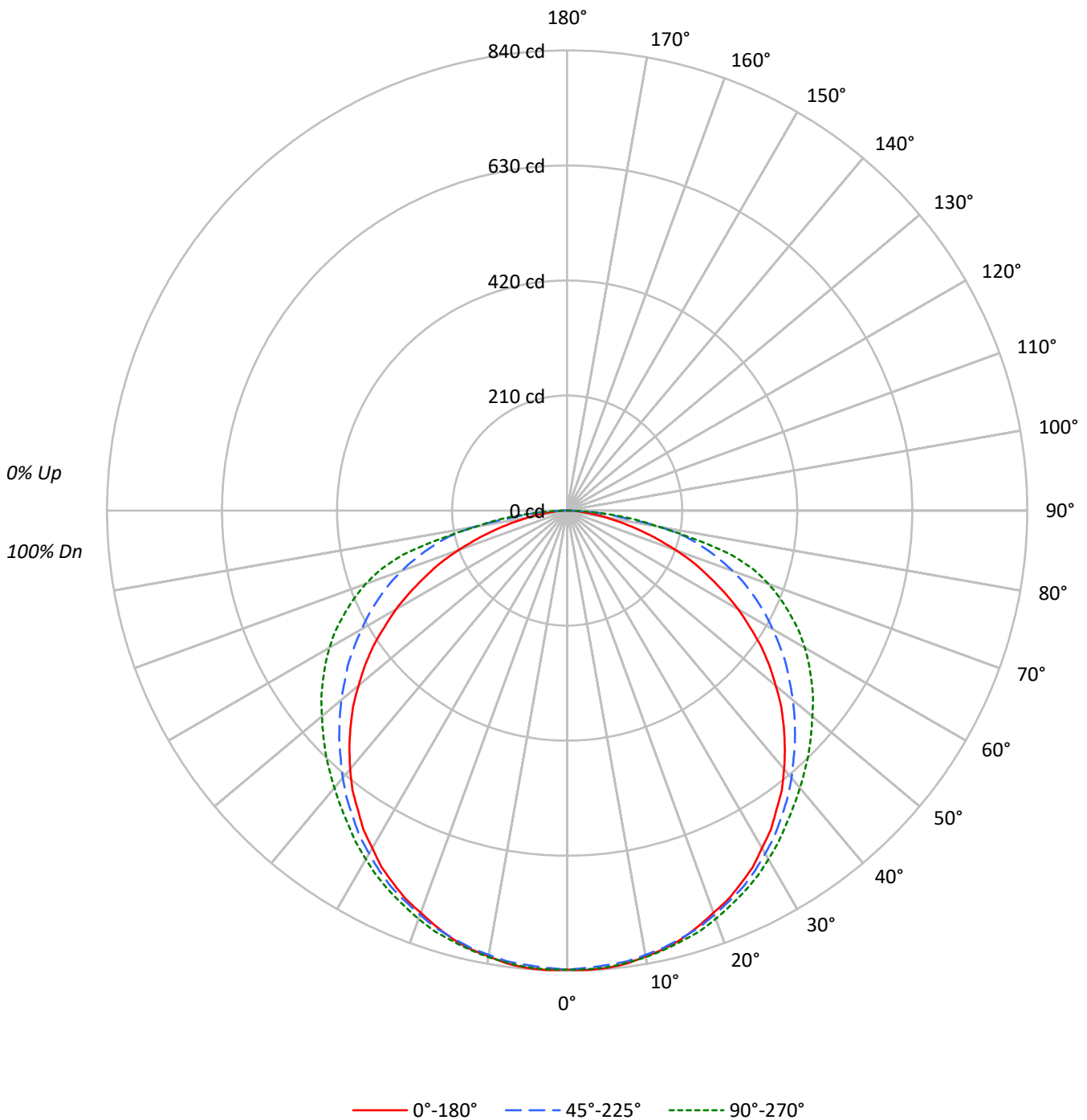
Input Watts (W): 32.754228  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	68	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°	1128	1128	1128
5°	1132	1125	1130
10°	1129	1125	1131
15°	1127	1125	1132
20°	1119	1124	1136
25°	1115	1127	1138
30°	1105	1123	1142
35°	1094	1120	1146
40°	1082	1119	1161
45°	1064	1119	1187
50°	1041	1126	1223
55°	1014	1144	1278
60°	971	1167	1348
65°	909	1208	1431
70°	827	1264	1539
75°	701	1333	1608
80°	553	1342	1301
85°	408	1020	1142



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.5	3.0
10°-20°	228.8	8.6
20°-30°	349.9	13.1
30°-40°	427.8	16.0
40°-50°	455.9	17.1
50°-60°	435.9	16.4
60°-70°	369.3	13.9
70°-80°	248.2	9.3
80°-90°	70.0	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°	658.2	24.7
0°-40°	1086.0	40.7
0°-60°	1977.8	74.2
0°-90°	2665.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2665.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	838	838	838	838	838	
5°	838	837	833	837	837	80
15°	809	809	808	814	813	228
25°	751	754	759	765	767	346
35°	666	672	682	695	698	417
45°	559	568	588	613	624	431
55°	432	448	488	526	545	385
65°	286	315	379	430	450	283
75°	135	184	256	300	309	144
85°	26	54	66	71	74	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	838.1	838.1	838.1	838.1	838.1
2.5°	839.5	839.5	835.5	838.1	838.1
5°	838.1	836.8	832.8	836.8	836.8
7.5°	834.2	832.8	830.2	834.2	832.8
10°	826.2	826.2	823.6	827.6	827.6
12.5°	819.6	818.3	817.0	822.3	821.0
15°	809.1	809.1	807.7	814.3	813.0
17.5°	795.8	797.2	798.5	803.8	805.1
20°	781.3	783.9	785.3	793.2	793.2
22.5°	768.1	769.4	772.0	780.0	780.0
25°	750.9	753.5	758.8	765.4	766.7
27.5°	733.7	735.0	741.6	750.9	752.2
30°	711.2	715.2	723.1	733.7	735.0
32.5°	691.4	695.4	704.6	715.2	717.8
35°	666.3	671.6	682.1	695.4	698.0
37.5°	643.8	647.8	661.0	675.5	679.5
40°	616.0	624.0	637.2	654.4	661.0
42.5°	588.3	596.2	612.1	634.6	642.5
45°	559.2	568.5	588.3	613.4	624.0
47.5°	530.1	540.7	563.2	592.2	604.1
50°	497.1	510.3	538.0	571.1	584.3
52.5°	465.3	481.2	511.6	548.6	565.8
55°	432.3	448.2	487.8	526.1	544.7
57.5°	395.3	416.4	460.0	503.7	523.5
60°	360.9	380.7	433.6	481.2	501.0
62.5°	323.9	350.3	407.2	457.4	477.2
65°	285.5	314.6	379.4	429.6	449.5
67.5°	251.2	282.9	351.6	401.9	421.7
70°	210.2	249.9	321.2	371.5	391.3
72.5°	171.9	215.5	289.5	338.4	356.9
75°	134.8	183.8	256.5	300.1	309.3
77.5°	100.5	152.0	222.1	240.6	234.0
80°	71.4	121.6	173.2	163.9	167.9
82.5°	46.3	92.5	107.1	121.6	125.6
85°	26.4	54.2	66.1	71.4	74.0
87.5°	11.9	19.8	26.4	26.4	25.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)