

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: P276762

Luminaire Tested: **24CZ2-60HE-RDP-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276762  
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: 24CZ2-60HE-RDP-UNV-L83050-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3627.0 lumens  
Efficiency: N/A  
Efficacy: 82.1 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

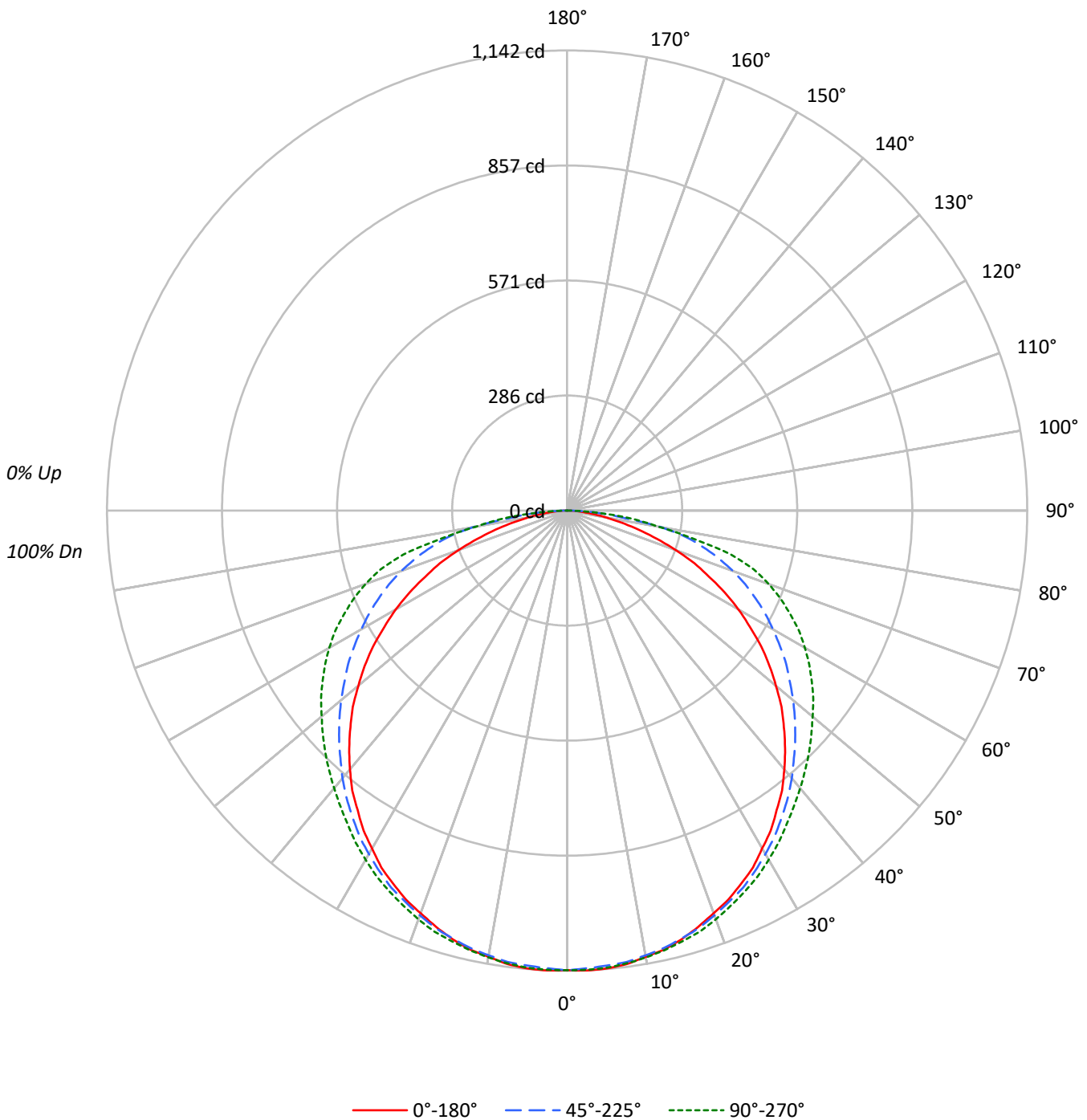
Input Watts (W): 44.179464  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82					82			
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67					67			
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35					35			
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27					27			
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

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

	0°	45°	90°
0°	1535	1535	1535
5°	1541	1531	1538
10°	1536	1531	1539
15°	1534	1531	1541
20°	1522	1530	1546
25°	1517	1533	1549
30°	1504	1529	1554
35°	1489	1525	1560
40°	1473	1523	1580
45°	1448	1523	1616
50°	1416	1533	1665
55°	1380	1557	1739
60°	1322	1588	1835
65°	1237	1644	1947
70°	1125	1720	2095
75°	954	1814	2189
80°	752	1826	1771
85°	556	1389	1555



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.2	3.0
10°-20°	311.4	8.6
20°-30°	476.2	13.1
30°-40°	582.1	16.0
40°-50°	620.4	17.1
50°-60°	593.2	16.4
60°-70°	502.5	13.9
70°-80°	337.7	9.3
80°-90°	95.3	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°	895.8	24.7
0°-40°	1477.9	40.7
0°-60°	2691.5	74.2
0°-90°	3627.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3627.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1141	1141	1141	1141	1141	
5°	1141	1139	1133	1139	1139	108
15°	1101	1101	1099	1108	1106	310
25°	1022	1025	1033	1042	1043	471
35°	907	914	928	946	950	568
45°	761	774	801	835	849	587
55°	588	610	664	716	741	524
65°	389	428	516	585	612	386
75°	184	250	349	408	421	196
85°	36	74	90	97	101	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1140.6	1140.6	1140.6	1140.6	1140.6
2.5°	1142.4	1142.4	1137.0	1140.6	1140.6
5°	1140.6	1138.8	1133.4	1138.8	1138.8
7.5°	1135.2	1133.4	1129.8	1135.2	1133.4
10°	1124.4	1124.4	1120.8	1126.2	1126.2
12.5°	1115.4	1113.6	1111.8	1119.0	1117.2
15°	1101.0	1101.0	1099.2	1108.2	1106.4
17.5°	1083.0	1084.8	1086.6	1093.8	1095.6
20°	1063.2	1066.8	1068.6	1079.4	1079.4
22.5°	1045.2	1047.0	1050.6	1061.4	1061.4
25°	1021.9	1025.4	1032.6	1041.6	1043.4
27.5°	998.5	1000.3	1009.3	1021.9	1023.7
30°	967.9	973.3	984.1	998.5	1000.3
32.5°	940.9	946.3	958.9	973.3	976.9
35°	906.7	913.9	928.3	946.3	949.9
37.5°	876.1	881.5	899.5	919.3	924.7
40°	838.4	849.1	867.1	890.5	899.5
42.5°	800.6	811.4	833.0	863.5	874.3
45°	761.0	773.6	800.6	834.8	849.1
47.5°	721.4	735.8	766.4	806.0	822.2
50°	676.4	694.4	732.2	777.2	795.2
52.5°	633.3	654.8	696.2	746.6	770.0
55°	588.3	609.9	663.8	716.0	741.2
57.5°	537.9	566.7	626.1	685.4	712.4
60°	491.1	518.1	590.1	654.8	681.8
62.5°	440.8	476.7	554.1	622.5	649.5
65°	388.6	428.2	516.3	584.7	611.7
67.5°	341.8	385.0	478.5	546.9	573.9
70°	286.0	340.0	437.2	505.5	532.5
72.5°	233.9	293.2	394.0	460.6	485.7
75°	183.5	250.1	349.0	408.4	421.0
77.5°	136.7	206.9	302.2	327.4	318.4
80°	97.1	165.5	235.7	223.1	228.5
82.5°	63.0	125.9	145.7	165.5	170.9
85°	36.0	73.8	90.0	97.1	100.7
87.5°	16.2	27.0	36.0	36.0	34.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)