

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: P261106

Luminaire Tested: **24CZ-LD5-35SE-S-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261106  
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-L93050-W2A1-U-5000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3388.7 lumens  
Efficiency: N/A  
Efficacy: 124.9 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

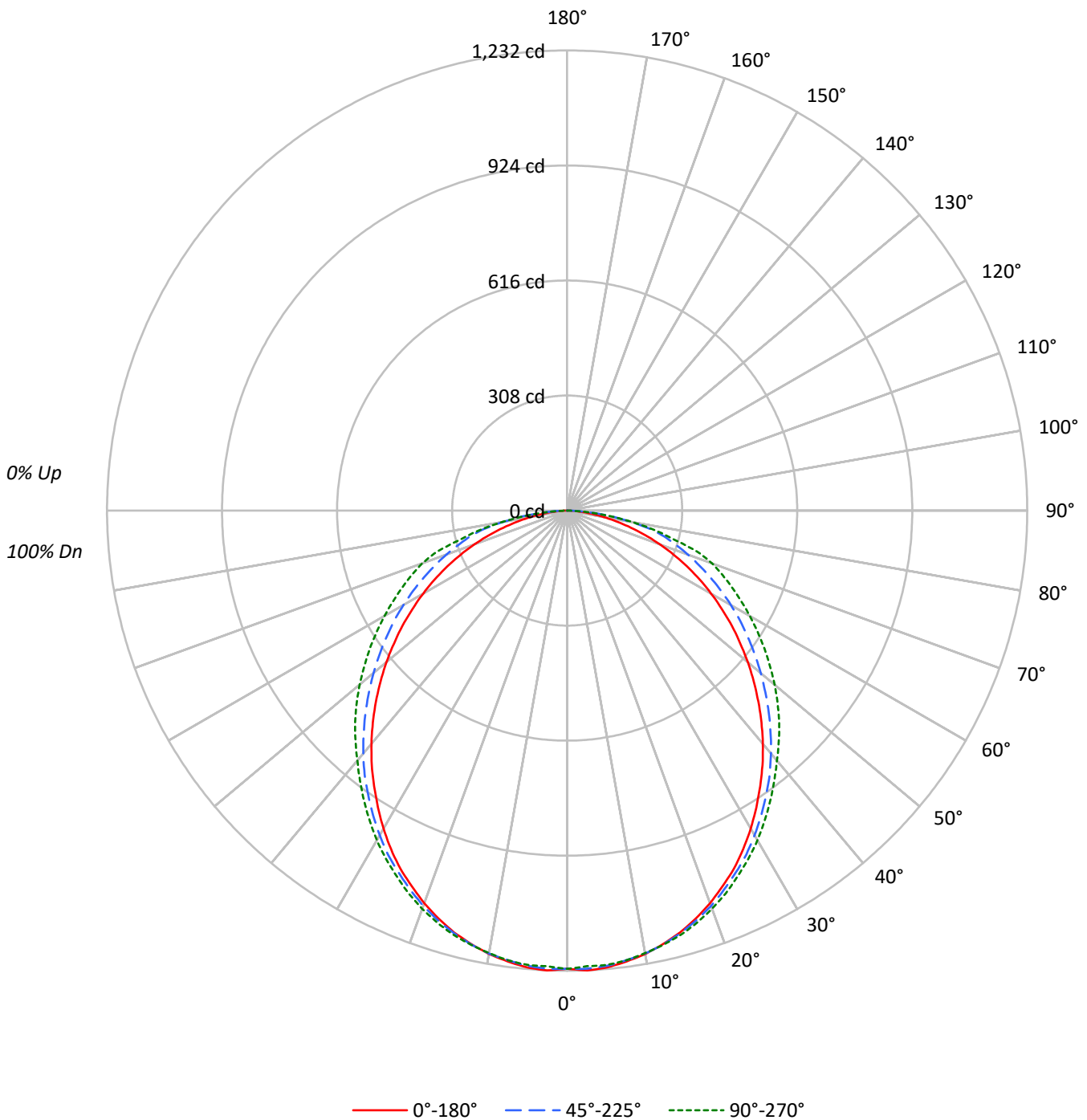
Input Watts (W): 27.13368  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50					50			
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27					27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

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

	0°	45°	90°
0°	1651	1651	1651
5°	1658	1652	1649
10°	1647	1645	1644
15°	1629	1632	1638
20°	1602	1613	1624
25°	1570	1587	1604
30°	1528	1559	1584
35°	1480	1526	1558
40°	1432	1491	1535
45°	1377	1452	1528
50°	1322	1416	1518
55°	1264	1386	1513
60°	1199	1362	1520
65°	1127	1346	1551
70°	1038	1353	1624
75°	920	1401	1512
80°	769	1328	1363
85°	574	1062	974



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.0	3.4
10°-20°	329.9	9.7
20°-30°	491.6	14.5
30°-40°	578.7	17.1
40°-50°	588.1	17.4
50°-60°	528.7	15.6
60°-70°	417.7	12.3
70°-80°	265.0	7.8
80°-90°	73.1	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°	937.4	27.7
0°-40°	1516.1	44.7
0°-60°	2632.9	77.7
0°-90°	3388.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3388.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1227	1227	1227	1227	1227	
5°	1228	1218	1223	1221	1221	116
15°	1169	1164	1172	1175	1176	329
25°	1058	1056	1069	1076	1080	486
35°	901	906	929	939	948	564
45°	724	734	763	786	803	559
55°	539	552	591	629	645	481
65°	354	372	423	469	487	351
75°	177	208	270	293	291	188
85°	37	64	69	63	63	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1226.8	1226.8	1226.8	1226.8	1226.8
2.5°	1232.4	1223.4	1227.9	1225.6	1221.1
5°	1227.9	1217.7	1223.4	1221.1	1221.1
7.5°	1217.7	1209.9	1214.4	1213.2	1214.4
10°	1205.3	1197.4	1204.2	1204.2	1203.1
12.5°	1188.4	1181.7	1189.6	1189.6	1190.7
15°	1169.3	1163.6	1171.5	1174.9	1176.0
17.5°	1145.6	1139.9	1150.1	1153.5	1156.9
20°	1118.5	1116.3	1126.4	1129.8	1134.3
22.5°	1088.1	1088.1	1098.2	1102.7	1109.5
25°	1057.6	1056.5	1068.9	1075.7	1080.2
27.5°	1021.6	1022.7	1038.5	1045.2	1050.9
30°	983.2	985.5	1003.5	1011.4	1019.3
32.5°	942.6	947.1	967.4	976.5	984.3
35°	900.9	906.5	929.1	939.2	948.3
37.5°	859.2	867.1	890.8	900.9	911.1
40°	815.2	822.0	849.0	861.4	873.8
42.5°	770.1	779.1	806.2	824.2	838.9
45°	723.9	734.0	763.3	785.9	802.8
47.5°	677.7	691.2	719.4	749.8	764.5
50°	631.4	645.0	676.5	710.4	725.0
52.5°	584.1	597.6	633.7	668.6	684.4
55°	539.0	552.5	590.8	629.2	645.0
57.5°	491.6	506.3	549.1	588.6	604.4
60°	445.4	460.0	506.3	548.0	564.9
62.5°	400.3	416.1	464.5	508.5	525.4
65°	354.0	372.1	422.8	469.1	487.1
67.5°	308.9	329.2	382.2	430.7	449.9
70°	263.8	287.5	343.9	393.5	412.7
72.5°	219.9	245.8	305.6	355.2	365.3
75°	177.0	207.5	269.5	293.2	290.9
77.5°	136.4	170.3	228.9	233.4	240.2
80°	99.2	136.4	171.4	180.4	175.9
82.5°	65.4	102.6	122.9	118.4	117.3
85°	37.2	64.3	68.8	63.1	63.1
87.5°	15.8	25.9	22.6	16.9	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)