

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: P260617

Luminaire Tested: **24CZ-LD5-45SE-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260617  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-45SE-UNV-L83050-W2A1-U-3000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4283.0 lumens  
Efficiency: N/A  
Efficacy: 122.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

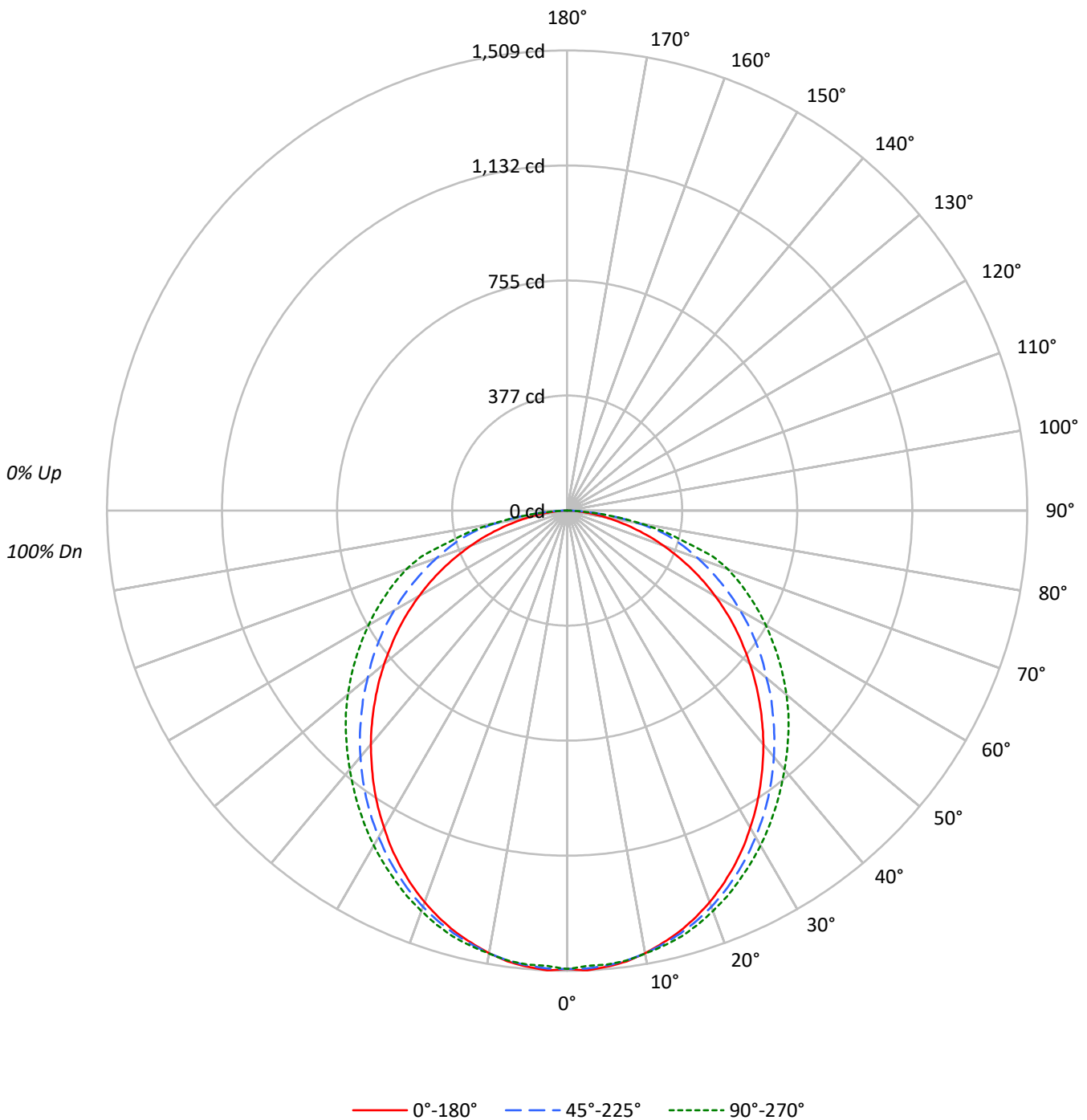
Input Watts (W): 34.898064  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

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

	0°	45°	90°
0°	2022	2022	2022
5°	2028	2022	2018
10°	2014	2014	2015
15°	1990	2000	2014
20°	1957	1980	2001
25°	1916	1953	1985
30°	1866	1921	1971
35°	1814	1888	1956
40°	1759	1852	1947
45°	1699	1817	1953
50°	1639	1787	1964
55°	1579	1775	1985
60°	1507	1764	2024
65°	1429	1765	2092
70°	1321	1794	2204
75°	1182	1875	2097
80°	989	1795	1920
85°	747	1382	1314



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.0	3.3
10°-20°	404.3	9.4
20°-30°	604.3	14.1
30°-40°	716.9	16.7
40°-50°	737.9	17.2
50°-60°	677.0	15.8
60°-70°	547.3	12.8
70°-80°	355.2	8.3
80°-90°	98.0	2.3
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°	1150.6	26.9
0°-40°	1867.6	43.6
0°-60°	3282.5	76.6
0°-90°	4283.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4283.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1503	1503	1503	1503	1503	
5°	1502	1491	1497	1496	1494	142
15°	1428	1422	1436	1442	1446	402
25°	1290	1292	1315	1327	1337	594
35°	1104	1113	1150	1175	1191	691
45°	893	908	955	1000	1026	689
55°	673	694	757	818	846	601
65°	449	475	554	628	657	443
75°	227	270	361	403	403	242
85°	48	82	90	86	85	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1503.1	1503.1	1503.1	1503.1	1503.1
2.5°	1509.0	1497.2	1503.1	1501.6	1494.3
5°	1501.6	1491.4	1497.2	1495.8	1494.3
7.5°	1491.4	1481.1	1488.4	1487.0	1488.4
10°	1473.8	1465.0	1473.8	1475.2	1475.2
12.5°	1451.8	1444.5	1456.2	1459.1	1462.0
15°	1428.3	1422.5	1435.7	1441.5	1445.9
17.5°	1399.0	1394.6	1410.7	1418.1	1423.9
20°	1366.7	1365.3	1382.9	1390.2	1397.5
22.5°	1330.1	1330.1	1350.6	1359.4	1369.7
25°	1290.5	1291.9	1315.4	1327.1	1337.4
27.5°	1247.9	1249.4	1277.3	1291.9	1303.7
30°	1201.0	1206.9	1236.2	1255.3	1268.5
32.5°	1154.1	1161.4	1193.7	1215.7	1230.4
35°	1104.2	1113.0	1149.7	1174.6	1190.8
37.5°	1052.9	1063.2	1102.8	1130.6	1149.7
40°	1001.6	1013.3	1054.4	1086.6	1108.6
42.5°	947.3	960.5	1006.0	1044.1	1067.6
45°	893.1	907.7	954.7	1000.1	1026.5
47.5°	838.8	856.4	906.3	956.1	984.0
50°	783.1	800.7	853.5	910.7	938.5
52.5°	727.4	747.9	806.5	865.2	893.1
55°	673.1	693.6	756.7	818.3	846.1
57.5°	617.4	637.9	706.8	771.4	799.2
60°	560.2	583.6	655.5	721.5	752.3
62.5°	504.5	529.4	605.6	676.0	705.4
65°	448.7	475.1	554.3	627.6	657.0
67.5°	391.5	422.3	504.5	579.2	610.0
70°	335.8	369.5	456.1	530.9	560.2
72.5°	281.6	318.2	407.7	483.9	501.5
75°	227.3	269.8	360.7	403.3	403.3
77.5°	176.0	222.9	308.0	324.1	332.9
80°	127.6	178.9	231.7	250.8	247.8
82.5°	85.1	136.4	165.7	165.7	161.3
85°	48.4	82.1	89.5	86.5	85.1
87.5°	20.5	30.8	27.9	22.0	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)