

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: P276332

Luminaire Tested: **24CZ2-50HE-S-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276332  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-S-UNV-L83050-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4721.0 lumens  
Efficiency: N/A  
Efficacy: 132.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

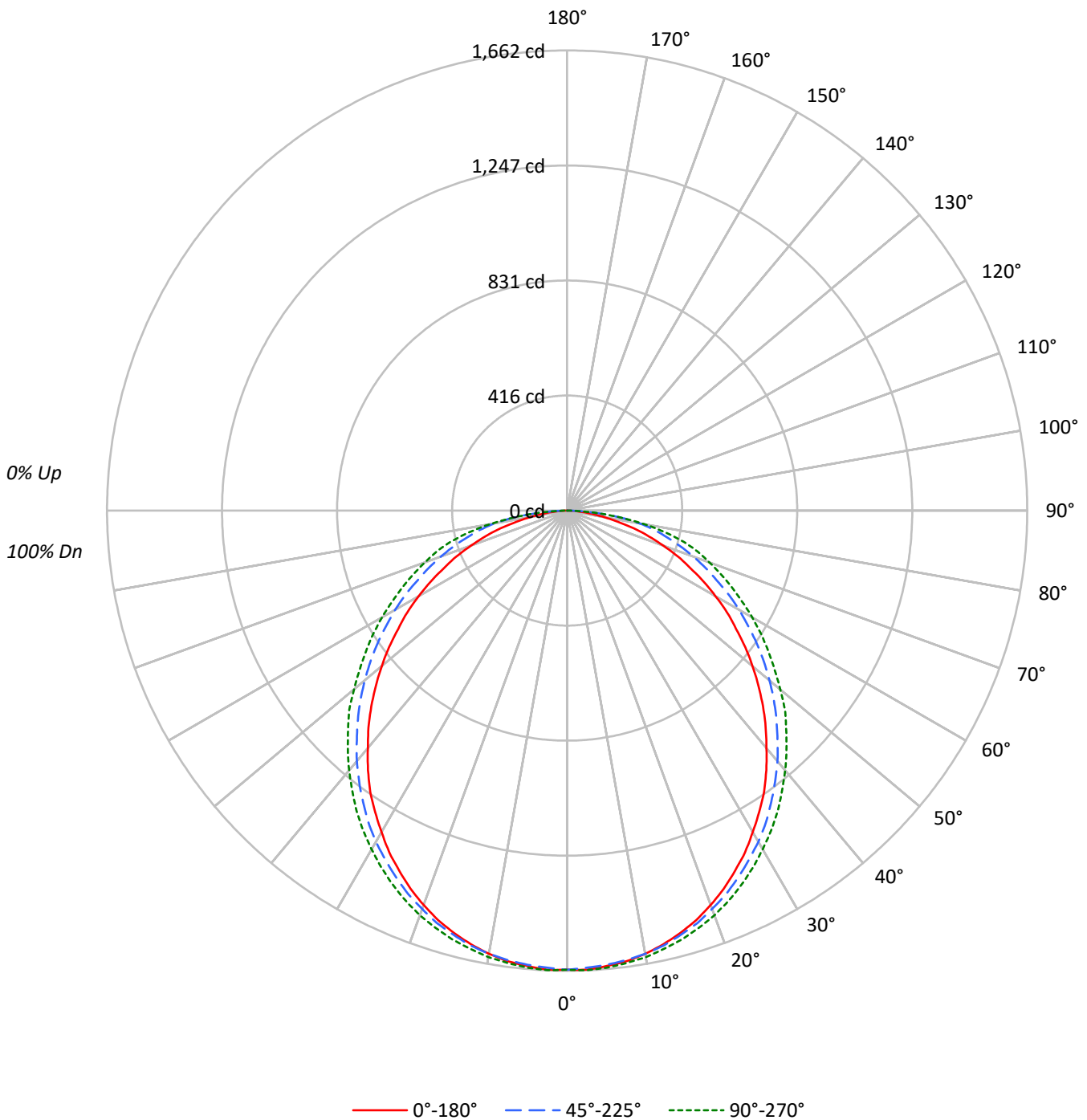
Input Watts (W): 35.640576  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	2231	2231	2231
5°	2230	2224	2238
10°	2221	2221	2237
15°	2199	2210	2233
20°	2171	2192	2227
25°	2131	2171	2213
30°	2083	2146	2195
35°	2037	2111	2177
40°	1968	2076	2152
45°	1903	2034	2129
50°	1830	1996	2103
55°	1748	1959	2082
60°	1667	1929	2078
65°	1561	1895	2091
70°	1445	1906	2147
75°	1294	1941	2269
80°	1046	2056	2219
85°	787	1806	1760



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.0	3.3
10°-20°	448.6	9.5
20°-30°	674.4	14.3
30°-40°	803.3	17.0
40°-50°	822.2	17.4
50°-60°	740.2	15.7
60°-70°	581.3	12.3
70°-80°	377.3	8.0
80°-90°	116.7	2.5
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°	1280.1	27.1
0°-40°	2083.4	44.1
0°-60°	3645.8	77.2
0°-90°	4721.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4721.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1658	1658	1658	1658	1658	
5°	1651	1654	1646	1656	1657	157
15°	1579	1584	1586	1600	1603	445
25°	1435	1447	1462	1486	1491	661
35°	1240	1255	1285	1317	1326	774
45°	1000	1024	1069	1110	1119	771
55°	745	778	835	879	888	668
65°	490	528	595	645	657	488
75°	249	297	373	424	436	263
85°	51	94	117	114	114	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1658.5	1658.5	1658.5	1658.5	1658.5
2.5°	1660.0	1660.0	1652.5	1660.0	1661.5
5°	1651.0	1654.0	1646.5	1655.5	1657.0
7.5°	1642.0	1642.0	1637.5	1646.5	1648.0
10°	1625.5	1627.0	1625.5	1636.0	1637.5
12.5°	1604.5	1607.5	1609.0	1619.5	1621.0
15°	1579.0	1583.5	1586.5	1600.0	1603.0
17.5°	1550.5	1555.0	1562.5	1577.5	1580.5
20°	1516.1	1522.1	1531.1	1550.5	1555.0
22.5°	1478.6	1484.6	1499.6	1517.6	1525.1
25°	1435.1	1447.1	1462.1	1486.1	1490.6
27.5°	1391.6	1402.1	1421.6	1447.1	1453.1
30°	1340.6	1357.1	1381.1	1406.6	1412.6
32.5°	1291.1	1307.6	1336.1	1363.1	1370.6
35°	1240.1	1255.1	1285.1	1316.6	1325.6
37.5°	1181.7	1201.2	1234.1	1265.6	1274.6
40°	1120.2	1144.2	1181.7	1214.6	1225.1
42.5°	1061.7	1087.2	1124.7	1160.7	1172.7
45°	1000.2	1024.2	1069.2	1109.7	1118.7
47.5°	937.2	964.2	1012.2	1052.7	1067.7
50°	874.2	902.7	953.7	995.7	1004.7
52.5°	811.3	841.3	895.2	940.2	944.7
55°	745.3	778.3	835.3	878.7	887.7
57.5°	685.3	713.8	775.3	820.3	830.8
60°	619.3	650.8	716.8	758.8	772.3
62.5°	556.3	589.3	658.3	700.3	712.3
65°	490.4	527.8	595.3	644.8	656.8
67.5°	433.4	469.4	541.3	589.3	601.3
70°	367.4	407.9	484.4	533.8	545.8
72.5°	310.4	352.4	428.9	476.9	494.9
75°	248.9	296.9	373.4	424.4	436.4
77.5°	188.9	244.4	322.4	361.4	361.4
80°	135.0	193.4	265.4	283.4	286.4
82.5°	88.5	145.5	196.4	194.9	194.9
85°	51.0	94.5	117.0	114.0	114.0
87.5°	19.5	39.0	42.0	42.0	40.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)