

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: P276491

Luminaire Tested: **24CZ2-45HE-S-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276491
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: 24CZ2-45HE-S-UNV-L82765-W2A1-U-3500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4353.7 lumens
Efficiency: N/A
Efficacy: 137.7 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

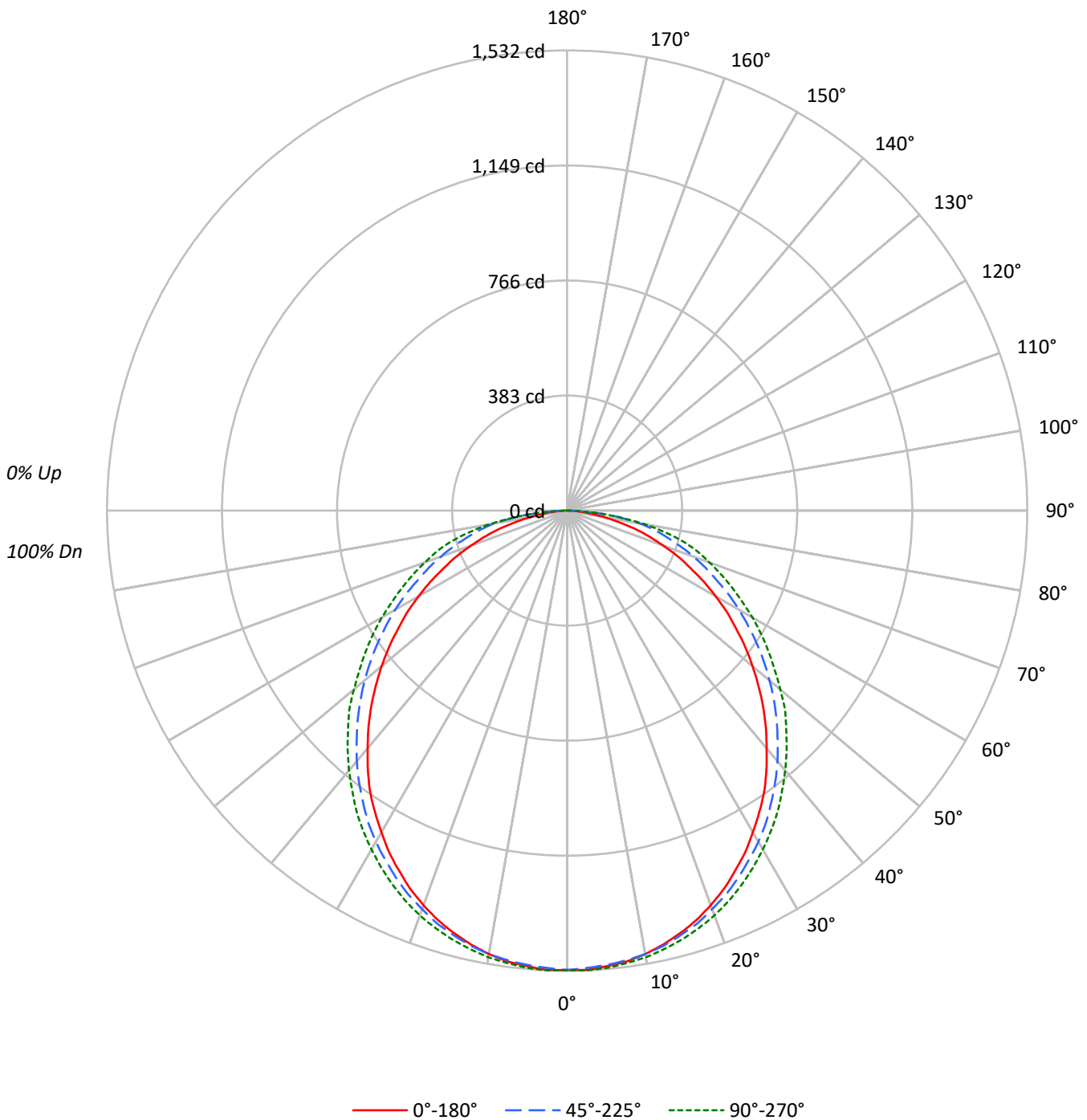
Input Watts (W): 31.62
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2058	2058	2058
5°	2056	2051	2064
10°	2048	2048	2063
15°	2028	2038	2059
20°	2002	2022	2053
25°	1965	2002	2041
30°	1921	1979	2024
35°	1879	1947	2008
40°	1814	1914	1984
45°	1755	1876	1963
50°	1688	1841	1939
55°	1612	1807	1920
60°	1537	1779	1917
65°	1440	1748	1928
70°	1333	1757	1980
75°	1194	1790	2092
80°	965	1897	2046
85°	726	1666	1623



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.8	3.3
10°-20°	413.7	9.5
20°-30°	621.9	14.3
30°-40°	740.8	17.0
40°-50°	758.2	17.4
50°-60°	682.6	15.7
60°-70°	536.1	12.3
70°-80°	347.9	8.0
80°-90°	107.6	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°	1180.5	27.1
0°-40°	1921.3	44.1
0°-60°	3362.1	77.2
0°-90°	4353.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4353.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1530	1530	1530	1530	1530	
5°	1523	1525	1518	1527	1528	145
15°	1456	1460	1463	1476	1478	411
25°	1323	1334	1348	1370	1375	610
35°	1144	1158	1185	1214	1222	713
45°	922	944	986	1023	1032	711
55°	687	718	770	810	819	616
65°	452	487	549	595	606	450
75°	230	274	344	391	402	243
85°	47	87	108	105	105	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1529.5	1529.5	1529.5	1529.5	1529.5
2.5°	1530.9	1530.9	1524.0	1530.9	1532.2
5°	1522.6	1525.3	1518.4	1526.7	1528.1
7.5°	1514.3	1514.3	1510.1	1518.4	1519.8
10°	1499.1	1500.4	1499.1	1508.7	1510.1
12.5°	1479.7	1482.5	1483.8	1493.5	1494.9
15°	1456.2	1460.3	1463.1	1475.5	1478.3
17.5°	1429.9	1434.1	1441.0	1454.8	1457.6
20°	1398.1	1403.6	1411.9	1429.9	1434.1
22.5°	1363.5	1369.1	1382.9	1399.5	1406.4
25°	1323.4	1334.5	1348.3	1370.4	1374.6
27.5°	1283.3	1293.0	1311.0	1334.5	1340.0
30°	1236.3	1251.5	1273.6	1297.2	1302.7
32.5°	1190.7	1205.9	1232.2	1257.1	1264.0
35°	1143.7	1157.5	1185.1	1214.2	1222.5
37.5°	1089.7	1107.7	1138.1	1167.2	1175.5
40°	1033.0	1055.1	1089.7	1120.1	1129.8
42.5°	979.1	1002.6	1037.2	1070.4	1081.4
45°	922.4	944.5	986.0	1023.3	1031.6
47.5°	864.3	889.2	933.5	970.8	984.6
50°	806.2	832.5	879.5	918.2	926.5
52.5°	748.1	775.8	825.6	867.1	871.2
55°	687.3	717.7	770.3	810.4	818.7
57.5°	632.0	658.3	715.0	756.4	766.1
60°	571.1	600.2	661.0	699.7	712.2
62.5°	513.1	543.5	607.1	645.8	656.9
65°	452.2	486.8	549.0	594.6	605.7
67.5°	399.7	432.8	499.2	543.5	554.5
70°	338.8	376.1	446.7	492.3	503.4
72.5°	286.3	325.0	395.5	439.8	456.4
75°	229.6	273.8	344.3	391.4	402.4
77.5°	174.2	225.4	297.3	333.3	333.3
80°	124.5	178.4	244.8	261.4	264.1
82.5°	81.6	134.1	181.2	179.8	179.8
85°	47.0	87.1	107.9	105.1	105.1
87.5°	18.0	36.0	38.7	38.7	37.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)