

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: P260642

Luminaire Tested: **24CZ-LD5-45-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260642
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-LD5-45-UNV-L93050-W2A1-U-3000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED AT 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3489.3 lumens
Efficiency: N/A
Efficacy: 108.5 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

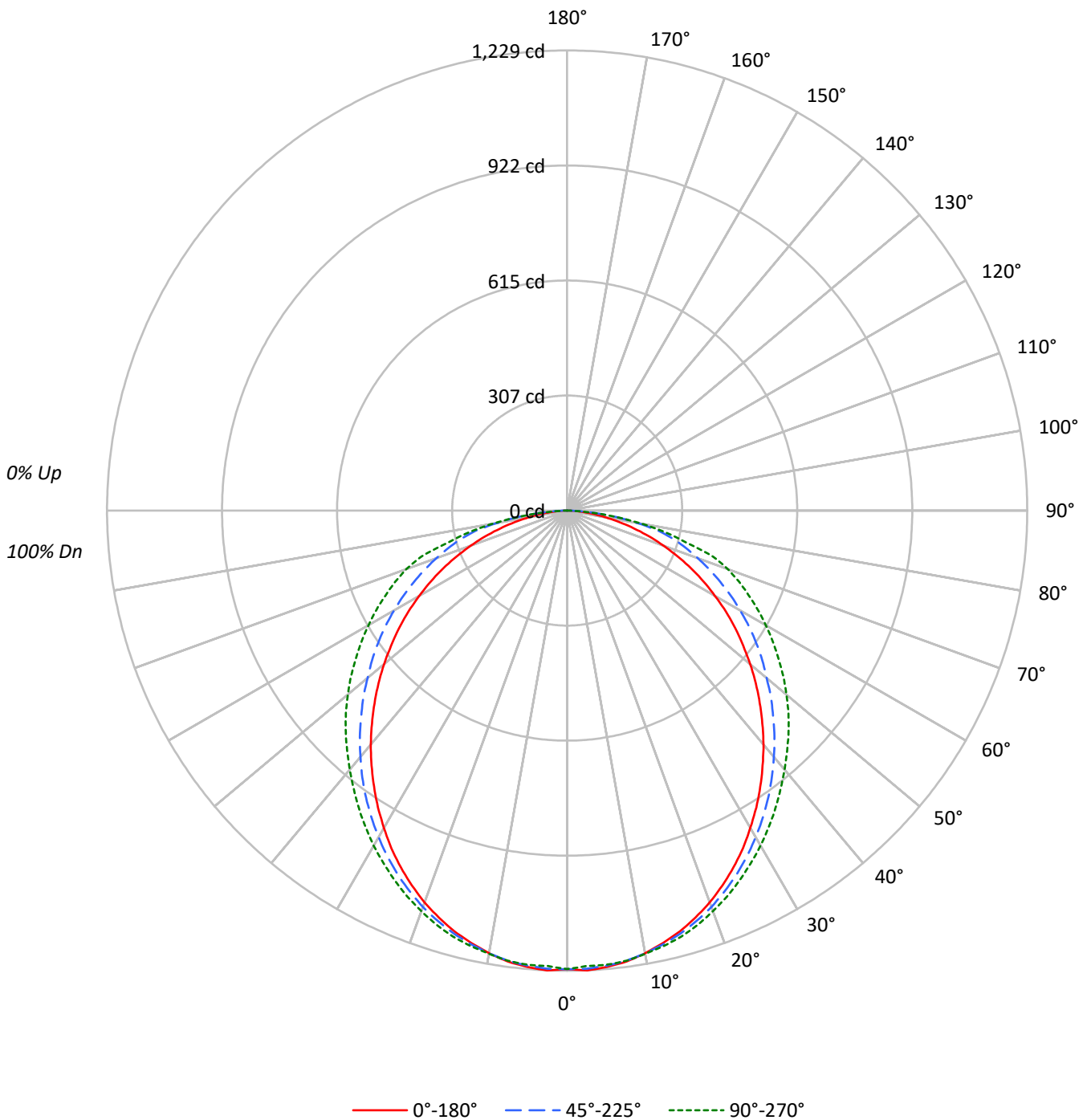
Input Watts (W): 32.156982
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1648	1648	1648
5°	1652	1647	1644
10°	1640	1640	1642
15°	1621	1629	1641
20°	1594	1613	1630
25°	1561	1591	1618
30°	1520	1565	1606
35°	1478	1538	1593
40°	1433	1509	1586
45°	1384	1480	1591
50°	1335	1455	1600
55°	1286	1446	1617
60°	1228	1437	1649
65°	1164	1438	1704
70°	1076	1462	1795
75°	963	1528	1708
80°	805	1463	1564
85°	608	1125	1070



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.7	3.3
10°-20°	329.4	9.4
20°-30°	492.4	14.1
30°-40°	584.1	16.7
40°-50°	601.2	17.2
50°-60°	551.5	15.8
60°-70°	445.9	12.8
70°-80°	289.4	8.3
80°-90°	79.8	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°	937.4	26.9
0°-40°	1521.5	43.6
0°-60°	2674.2	76.6
0°-90°	3489.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3489.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1225	1225	1225	1225	1225	
5°	1223	1215	1220	1219	1217	116
15°	1164	1159	1170	1174	1178	328
25°	1051	1052	1072	1081	1090	484
35°	900	907	937	957	970	563
45°	728	740	778	815	836	561
55°	548	565	616	667	689	490
65°	366	387	452	511	535	361
75°	185	220	294	328	328	197
85°	39	67	73	70	69	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1224.6	1224.6	1224.6	1224.6	1224.6
2.5°	1229.4	1219.8	1224.6	1223.4	1217.4
5°	1223.4	1215.0	1219.8	1218.6	1217.4
7.5°	1215.0	1206.7	1212.6	1211.4	1212.6
10°	1200.7	1193.5	1200.7	1201.9	1201.9
12.5°	1182.8	1176.8	1186.3	1188.7	1191.1
15°	1163.6	1158.9	1169.6	1174.4	1178.0
17.5°	1139.7	1136.2	1149.3	1155.3	1160.1
20°	1113.5	1112.3	1126.6	1132.6	1138.6
22.5°	1083.6	1083.6	1100.3	1107.5	1115.9
25°	1051.3	1052.5	1071.7	1081.2	1089.6
27.5°	1016.7	1017.9	1040.6	1052.5	1062.1
30°	978.5	983.2	1007.1	1022.7	1033.4
32.5°	940.2	946.2	972.5	990.4	1002.4
35°	899.6	906.8	936.6	957.0	970.1
37.5°	857.8	866.2	898.4	921.1	936.6
40°	816.0	825.5	859.0	885.3	903.2
42.5°	771.8	782.5	819.6	850.6	869.7
45°	727.6	739.5	777.8	814.8	836.3
47.5°	683.4	697.7	738.3	778.9	801.6
50°	638.0	652.3	695.3	741.9	764.6
52.5°	592.6	609.3	657.1	704.9	727.6
55°	548.4	565.1	616.5	666.6	689.3
57.5°	503.0	519.7	575.8	628.4	651.1
60°	456.4	475.5	534.0	587.8	612.9
62.5°	411.0	431.3	493.4	550.8	574.7
65°	365.6	387.1	451.6	511.3	535.2
67.5°	319.0	344.1	411.0	471.9	497.0
70°	273.6	301.1	371.6	432.5	456.4
72.5°	229.4	259.3	332.1	394.3	408.6
75°	185.2	219.8	293.9	328.5	328.5
77.5°	143.4	181.6	250.9	264.0	271.2
80°	103.9	145.8	188.8	204.3	201.9
82.5°	69.3	111.1	135.0	135.0	131.4
85°	39.4	66.9	72.9	70.5	69.3
87.5°	16.7	25.1	22.7	17.9	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)