

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: P260687

Luminaire Tested: **24CZ-LD5-40SE-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260687
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-LD5-40SE-UNV-L93050-W2A1-U-3000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED AT 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3149.3 lumens
Efficiency: N/A
Efficacy: 101.2 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

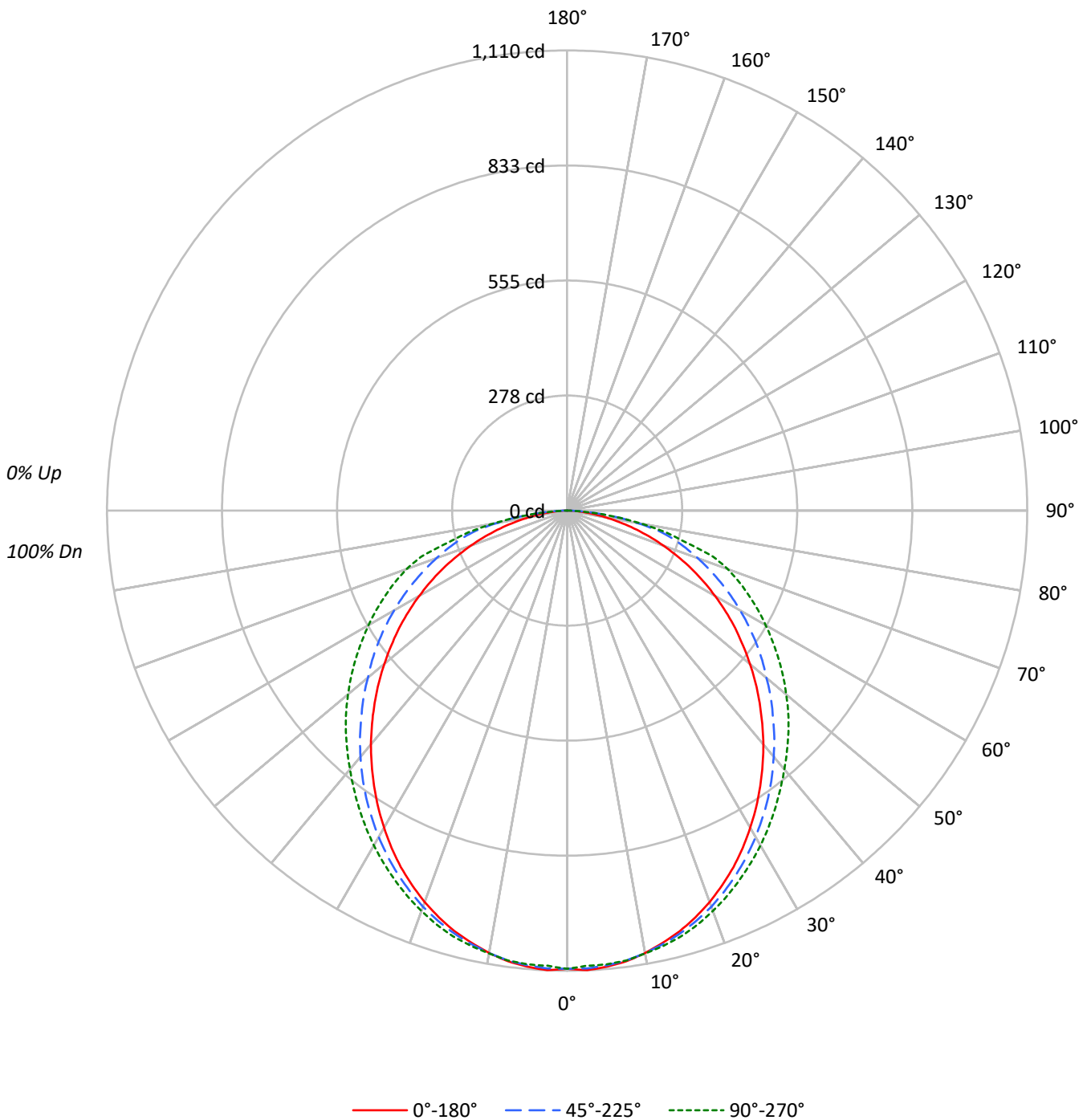
Input Watts (W): 31.110453
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1487	1487	1487
5°	1491	1487	1484
10°	1481	1481	1482
15°	1463	1471	1481
20°	1439	1456	1471
25°	1409	1436	1460
30°	1372	1412	1449
35°	1334	1389	1438
40°	1294	1362	1432
45°	1250	1336	1436
50°	1205	1314	1445
55°	1161	1305	1460
60°	1108	1297	1489
65°	1051	1298	1538
70°	971	1319	1620
75°	869	1379	1541
80°	727	1320	1412
85°	550	1016	965



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	3.3
10°-20°	297.3	9.4
20°-30°	444.4	14.1
30°-40°	527.2	16.7
40°-50°	542.6	17.2
50°-60°	497.8	15.8
60°-70°	402.5	12.8
70°-80°	261.2	8.3
80°-90°	72.0	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°	846.1	26.9
0°-40°	1373.3	43.6
0°-60°	2413.6	76.6
0°-90°	3149.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3149.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1105	1105	1105	1105	1105	
5°	1104	1097	1101	1100	1099	105
15°	1050	1046	1056	1060	1063	296
25°	949	950	967	976	983	437
35°	812	818	845	864	876	508
45°	657	668	702	735	755	507
55°	495	510	556	602	622	442
65°	330	349	408	462	483	326
75°	167	198	265	296	296	178
85°	36	60	66	64	62	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1105.3	1105.3	1105.3	1105.3	1105.3
2.5°	1109.6	1100.9	1105.3	1104.2	1098.8
5°	1104.2	1096.6	1100.9	1099.9	1098.8
7.5°	1096.6	1089.1	1094.5	1093.4	1094.5
10°	1083.7	1077.2	1083.7	1084.8	1084.8
12.5°	1067.5	1062.1	1070.8	1072.9	1075.1
15°	1050.3	1045.9	1055.7	1060.0	1063.2
17.5°	1028.7	1025.5	1037.3	1042.7	1047.0
20°	1005.0	1003.9	1016.8	1022.2	1027.6
22.5°	978.0	978.0	993.1	999.6	1007.1
25°	948.9	950.0	967.2	975.9	983.4
27.5°	917.6	918.7	939.2	950.0	958.6
30°	883.1	887.4	909.0	923.0	932.7
32.5°	848.6	854.0	877.7	893.9	904.7
35°	812.0	818.4	845.4	863.7	875.6
37.5°	774.2	781.8	810.9	831.4	845.4
40°	736.5	745.1	775.3	799.0	815.2
42.5°	696.6	706.3	739.7	767.7	785.0
45°	656.7	667.5	702.0	735.4	754.8
47.5°	616.8	629.7	666.4	703.1	723.5
50°	575.8	588.8	627.6	669.6	690.1
52.5°	534.8	549.9	593.1	636.2	656.7
55°	494.9	510.0	556.4	601.7	622.2
57.5°	454.0	469.1	519.7	567.2	587.7
60°	411.9	429.2	482.0	530.5	553.2
62.5°	370.9	389.3	445.3	497.1	518.7
65°	330.0	349.4	407.6	461.5	483.1
67.5°	287.9	310.5	370.9	425.9	448.6
70°	246.9	271.7	335.4	390.3	411.9
72.5°	207.0	234.0	299.8	355.8	368.8
75°	167.1	198.4	265.3	296.5	296.5
77.5°	129.4	163.9	226.4	238.3	244.8
80°	93.8	131.6	170.4	184.4	182.2
82.5°	62.5	100.3	121.8	121.8	118.6
85°	35.6	60.4	65.8	63.6	62.5
87.5°	15.1	22.6	20.5	16.2	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)