

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: P229958

Luminaire Tested: **24CZ-LD5-30-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229958
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-LD5-30-UNV-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2656.0 lumens
Efficiency: N/A
Efficacy: 122.8 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

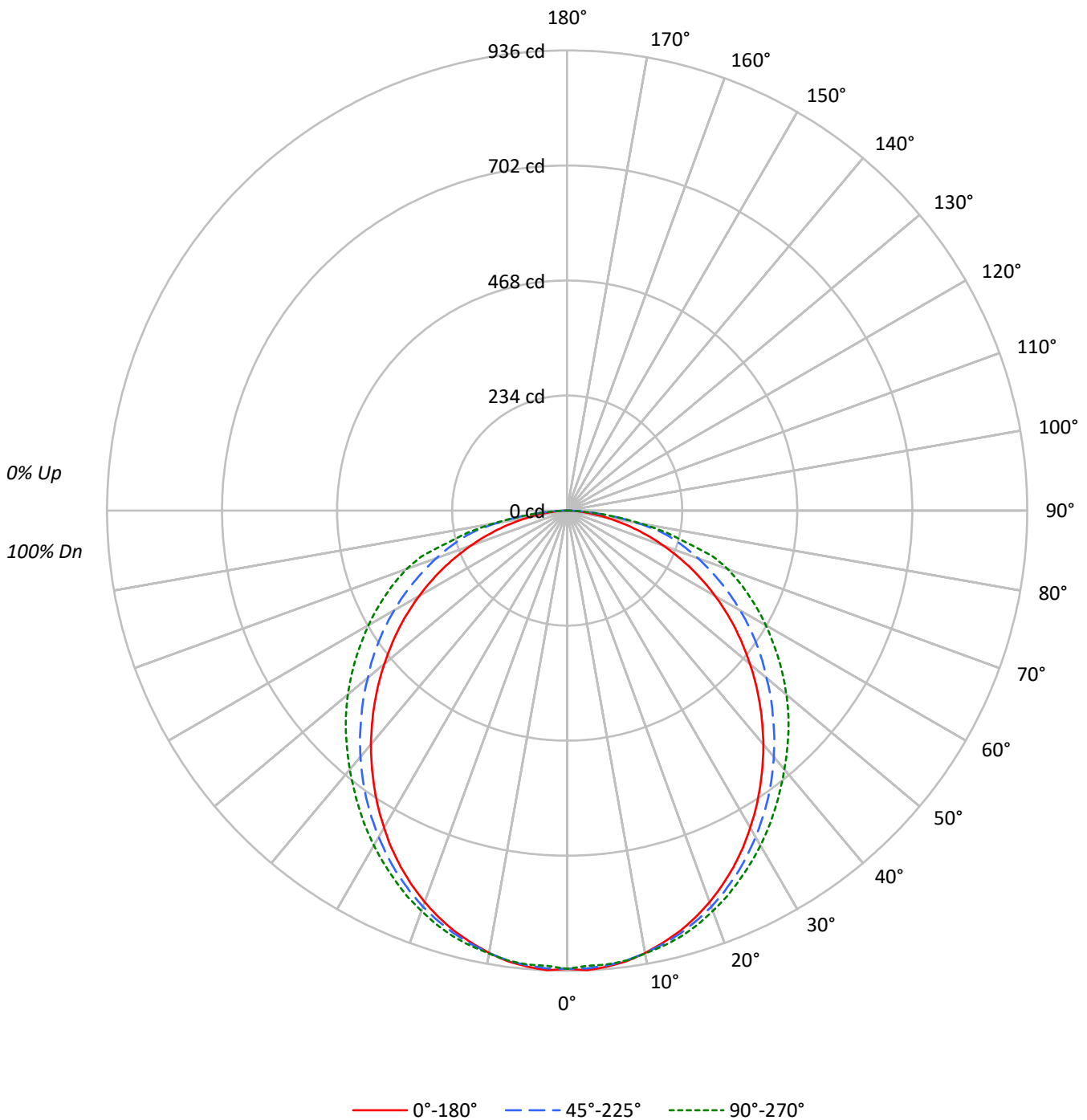
Input Watts (W): 21.62
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1254	1254	1254
5°	1258	1254	1252
10°	1249	1249	1250
15°	1234	1240	1249
20°	1213	1228	1241
25°	1188	1211	1231
30°	1157	1191	1222
35°	1125	1171	1213
40°	1091	1148	1208
45°	1054	1126	1211
50°	1016	1108	1218
55°	979	1101	1231
60°	935	1094	1255
65°	886	1094	1297
70°	819	1113	1367
75°	733	1163	1300
80°	613	1113	1191
85°	463	857	814



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.1	3.3
10°-20°	250.7	9.4
20°-30°	374.8	14.1
30°-40°	444.6	16.7
40°-50°	457.6	17.2
50°-60°	419.8	15.8
60°-70°	339.4	12.8
70°-80°	220.3	8.3
80°-90°	60.7	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°	713.5	26.9
0°-40°	1158.1	43.6
0°-60°	2035.5	76.6
0°-90°	2656.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2656.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	932	932	932	932	932	
5°	931	925	928	928	927	88
15°	886	882	890	894	897	250
25°	800	801	816	823	829	368
35°	685	690	713	728	738	428
45°	554	563	592	620	637	427
55°	417	430	469	507	525	373
65°	278	295	344	389	407	275
75°	141	167	224	250	250	150
85°	30	51	56	54	53	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	932.1	932.1	932.1	932.1	932.1
2.5°	935.8	928.5	932.1	931.2	926.7
5°	931.2	924.8	928.5	927.6	926.7
7.5°	924.8	918.5	923.0	922.1	923.0
10°	913.9	908.5	913.9	914.8	914.8
12.5°	900.3	895.7	903.0	904.8	906.7
15°	885.7	882.1	890.3	893.9	896.7
17.5°	867.6	864.8	874.8	879.4	883.0
20°	847.5	846.6	857.5	862.1	866.6
22.5°	824.8	824.8	837.5	843.0	849.4
25°	800.3	801.2	815.7	823.0	829.4
27.5°	773.9	774.8	792.1	801.2	808.4
30°	744.8	748.4	766.6	778.4	786.6
32.5°	715.7	720.2	740.2	753.9	763.0
35°	684.8	690.2	713.0	728.4	738.4
37.5°	652.9	659.3	683.9	701.1	713.0
40°	621.1	628.4	653.8	673.9	687.5
42.5°	587.5	595.6	623.8	647.5	662.0
45°	553.8	562.9	592.0	620.2	636.6
47.5°	520.2	531.1	562.0	592.9	610.2
50°	485.6	496.5	529.3	564.7	582.0
52.5°	451.1	463.8	500.2	536.5	553.8
55°	417.4	430.1	469.2	507.4	524.7
57.5°	382.9	395.6	438.3	478.3	495.6
60°	347.4	361.9	406.5	447.4	466.5
62.5°	312.8	328.3	375.6	419.2	437.4
65°	278.3	294.6	343.7	389.2	407.4
67.5°	242.8	261.9	312.8	359.2	378.3
70°	208.2	229.2	282.8	329.2	347.4
72.5°	174.6	197.3	252.8	300.1	311.0
75°	141.0	167.3	223.7	250.1	250.1
77.5°	109.1	138.2	191.0	201.0	206.4
80°	79.1	110.9	143.7	155.5	153.7
82.5°	52.7	84.6	102.8	102.8	100.0
85°	30.0	50.9	55.5	53.7	52.7
87.5°	12.7	19.1	17.3	13.6	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)