

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: P387672

Luminaire Tested: **22CZ2-20HE-SQR-UNV-L930-CD1-SDWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P387672
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-SQR-UNV-L930-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1580.3 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

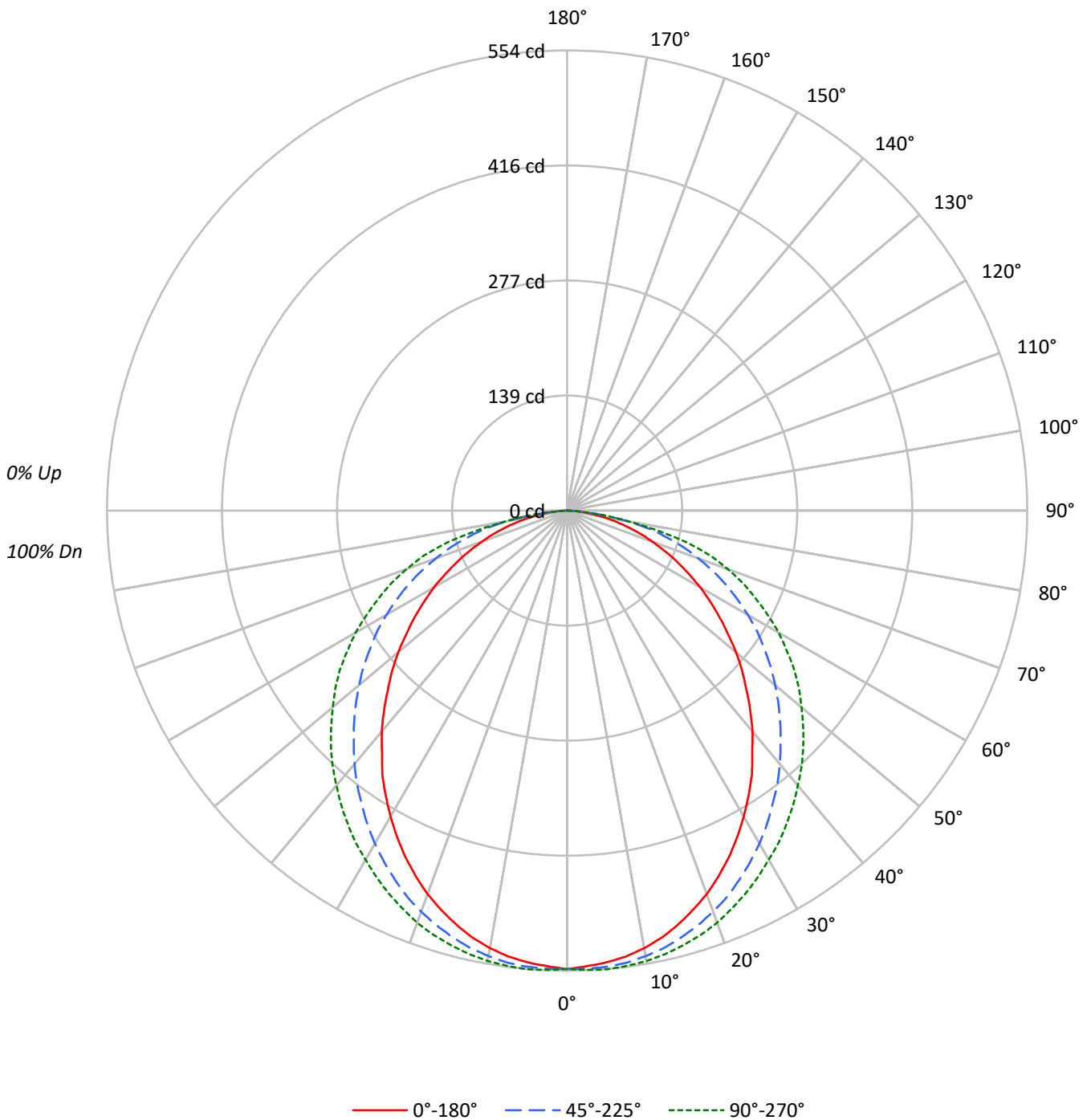
Input Watts (W): 16
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1485	1485	1485
5°	1475	1489	1497
10°	1461	1488	1504
15°	1438	1482	1509
20°	1407	1471	1512
25°	1367	1456	1510
30°	1322	1438	1508
35°	1274	1417	1513
40°	1220	1399	1518
45°	1162	1381	1530
50°	1111	1369	1542
55°	1052	1358	1566
60°	997	1352	1582
65°	932	1342	1595
70°	856	1322	1617
75°	773	1287	1560
80°	663	1139	1175
85°	534	673	534



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.3	3.3
10°-20°	149.6	9.5
20°-30°	224.7	14.2
30°-40°	268.0	17.0
40°-50°	277.1	17.5
50°-60°	254.8	16.1
60°-70°	202.8	12.8
70°-80°	123.9	7.8
80°-90°	27.0	1.7
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°	426.7	27.0
0°-40°	694.7	44.0
0°-60°	1226.6	77.6
0°-90°	1580.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1580.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	546	548	551	554	554	52
15°	516	522	532	539	542	145
25°	460	472	490	504	508	212
35°	388	404	431	454	460	242
45°	305	327	363	392	402	236
55°	224	249	290	322	334	201
65°	146	171	211	240	250	145
75°	74	96	124	146	150	79
85°	17	21	22	19	17	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	552.0	552.0	552.0	552.0	552.0
2.5°	549.0	549.8	552.0	553.5	553.5
5°	546.0	547.5	551.3	553.5	554.3
7.5°	541.5	543.8	549.0	552.0	552.8
10°	534.8	537.8	544.5	549.0	550.5
12.5°	526.5	531.0	539.3	545.3	546.8
15°	516.0	522.0	531.8	539.3	541.5
17.5°	504.0	511.5	523.5	532.5	535.5
20°	491.3	498.8	513.8	524.3	528.0
22.5°	476.3	486.0	503.3	515.3	518.3
25°	460.5	471.8	490.5	504.0	508.5
27.5°	443.3	456.8	477.0	493.5	497.3
30°	425.3	439.5	462.8	480.8	485.3
32.5°	406.5	423.0	447.8	468.0	474.0
35°	387.8	404.3	431.3	453.8	460.5
37.5°	366.0	385.5	415.5	438.8	447.0
40°	347.3	366.0	398.3	423.8	432.0
42.5°	326.3	346.5	380.3	408.0	417.8
45°	305.3	327.0	363.0	392.3	402.0
47.5°	285.8	307.5	345.0	375.8	385.5
50°	265.5	288.0	327.0	358.5	368.3
52.5°	243.8	268.5	309.0	340.5	351.8
55°	224.3	249.0	289.5	322.5	333.8
57.5°	204.0	229.5	271.5	303.0	313.5
60°	185.3	210.0	251.3	282.0	294.0
62.5°	165.0	190.5	231.0	261.0	272.3
65°	146.3	171.0	210.8	240.0	250.5
67.5°	127.5	152.3	189.8	217.5	229.5
70°	108.8	133.5	168.0	195.0	205.5
72.5°	92.3	114.0	147.0	171.8	181.5
75°	74.3	96.0	123.8	145.5	150.0
77.5°	57.8	77.3	100.5	110.3	111.8
80°	42.8	57.8	73.5	75.8	75.8
82.5°	28.5	39.8	45.8	46.5	45.8
85°	17.3	21.0	21.8	18.8	17.3
87.5°	6.0	6.0	3.8	2.3	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)