

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: P294826

Luminaire Tested: **22CZ2-20HE-HRP-UNV-L950-CD1-U**

Issue Date: 12/2/2019

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: P294826
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-HRP-UNV-L950-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (112) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1492.1 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

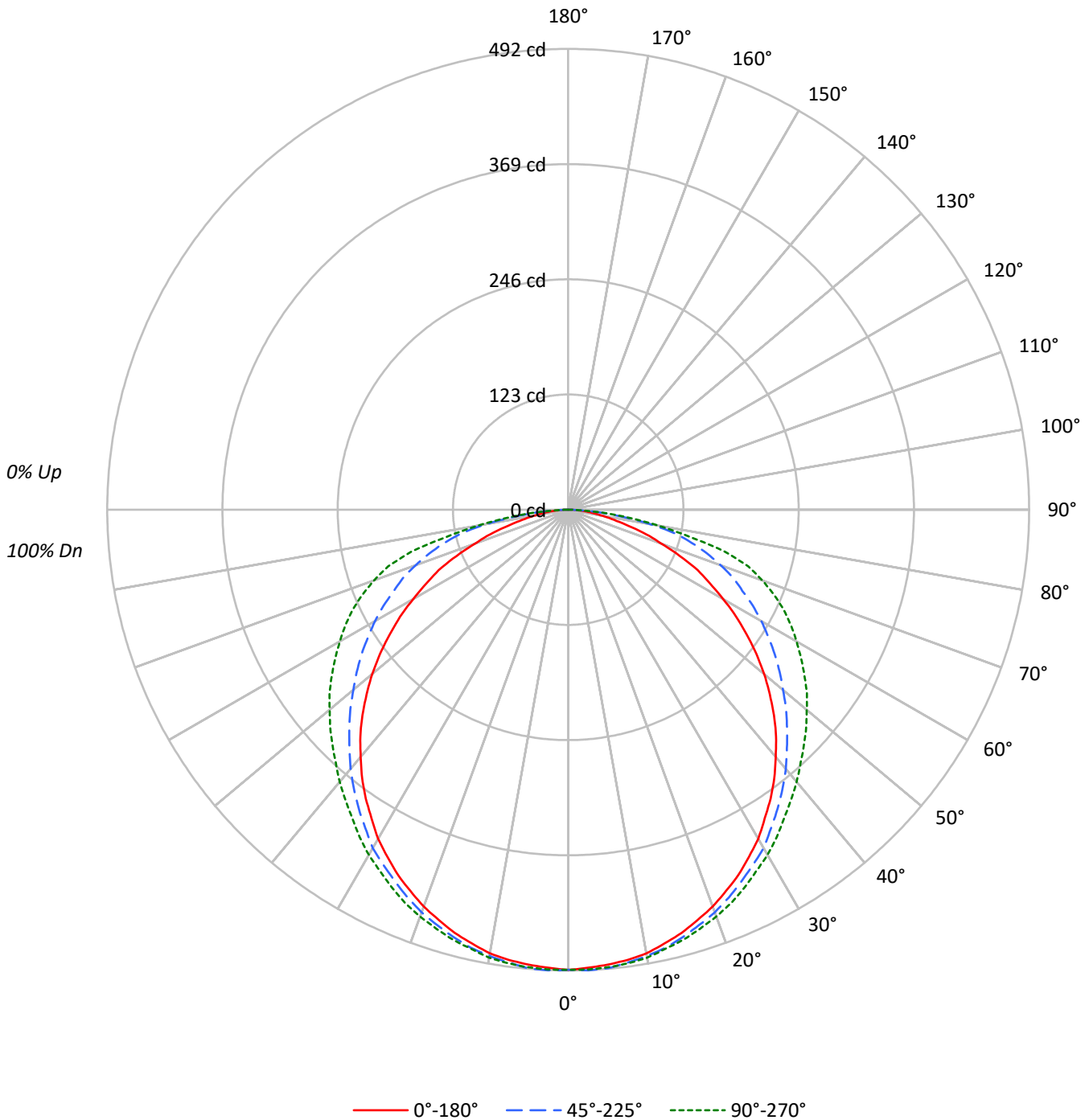
Input Watts (W): 16
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P294826

CATALOG NUMBER: 22CZ2-20HE-HRP-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P294826

CATALOG NUMBER: 22CZ2-20HE-HRP-UNV-L950-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1322	1322	1322
5°	1317	1327	1325
10°	1314	1322	1327
15°	1303	1316	1324
20°	1291	1310	1324
25°	1277	1300	1322
30°	1261	1296	1322
35°	1237	1280	1320
40°	1210	1270	1332
45°	1182	1257	1354
50°	1143	1253	1391
55°	1091	1263	1444
60°	1028	1281	1514
65°	971	1307	1618
70°	829	1363	1733
75°	695	1419	1801
80°	569	1371	1503
85°	494	1016	1105



TEST NUMBER: P294826

CATALOG NUMBER: 22CZ2-20HE-HRP-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.6	3.1
10°-20°	133.2	8.9
20°-30°	201.9	13.5
30°-40°	243.8	16.3
40°-50°	256.1	17.2
50°-60°	241.0	16.2
60°-70°	200.9	13.5
70°-80°	133.1	8.9
80°-90°	35.5	2.4
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°	381.7	25.6
0°-40°	625.4	41.9
0°-60°	1122.5	75.2
0°-90°	1492.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1492.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	491	491	491	491	491	
5°	488	488	491	491	490	46
15°	468	470	472	474	475	132
25°	430	433	438	443	445	198
35°	376	380	390	398	402	235
45°	311	315	330	347	356	239
55°	232	243	269	296	308	208
65°	152	166	205	239	254	148
75°	67	93	136	165	173	73
85°	16	24	33	36	36	19
90°	0	0	0	0	0	



TEST NUMBER: P294826

CATALOG NUMBER: 22CZ2-20HE-HRP-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	491.3	491.3	491.3	491.3	491.3
2.5°	489.5	490.4	492.3	492.3	491.3
5°	487.6	488.5	491.3	491.3	490.4
7.5°	484.8	485.7	487.6	489.5	488.5
10°	481.0	481.9	483.8	485.7	485.7
12.5°	474.4	475.3	479.1	480.1	480.1
15°	467.8	469.7	472.5	474.4	475.3
17.5°	459.3	461.2	465.0	468.8	468.8
20°	450.9	452.8	457.5	461.2	462.2
22.5°	440.5	443.3	448.0	452.8	454.6
25°	430.2	433.0	437.7	443.3	445.2
27.5°	417.9	420.8	427.3	433.9	434.9
30°	405.7	408.5	417.0	422.6	425.5
32.5°	390.6	394.4	402.9	411.3	414.2
35°	376.5	380.3	389.7	398.2	401.9
37.5°	361.4	365.2	375.6	385.9	390.6
40°	344.5	349.2	361.4	372.7	379.3
42.5°	328.5	333.2	345.4	360.5	367.1
45°	310.6	315.3	330.4	347.3	355.8
47.5°	291.8	297.4	315.3	336.0	344.5
50°	273.0	279.6	299.3	322.9	332.3
52.5°	253.2	261.7	284.3	309.7	321.0
55°	232.5	242.8	269.2	296.5	307.8
57.5°	212.7	222.1	253.2	282.4	294.6
60°	191.1	203.3	238.1	268.3	281.4
62.5°	170.4	183.5	222.1	254.1	268.3
65°	152.5	165.7	205.2	239.1	254.1
67.5°	129.0	146.8	191.1	223.1	238.1
70°	105.4	129.9	173.2	206.1	220.3
72.5°	87.5	111.1	155.3	188.3	201.4
75°	66.8	93.2	136.5	164.7	173.2
77.5°	49.9	77.2	116.7	130.8	131.8
80°	36.7	59.3	88.5	93.2	97.0
82.5°	25.4	41.4	57.4	63.1	64.9
85°	16.0	24.5	32.9	35.8	35.8
87.5°	8.5	9.4	11.3	11.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)