

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: P292236

Luminaire Tested: **22GR-LD5-28-A-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33296)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-28-A-UNV-L93050-W2A1-U-4500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2717.0 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.25
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

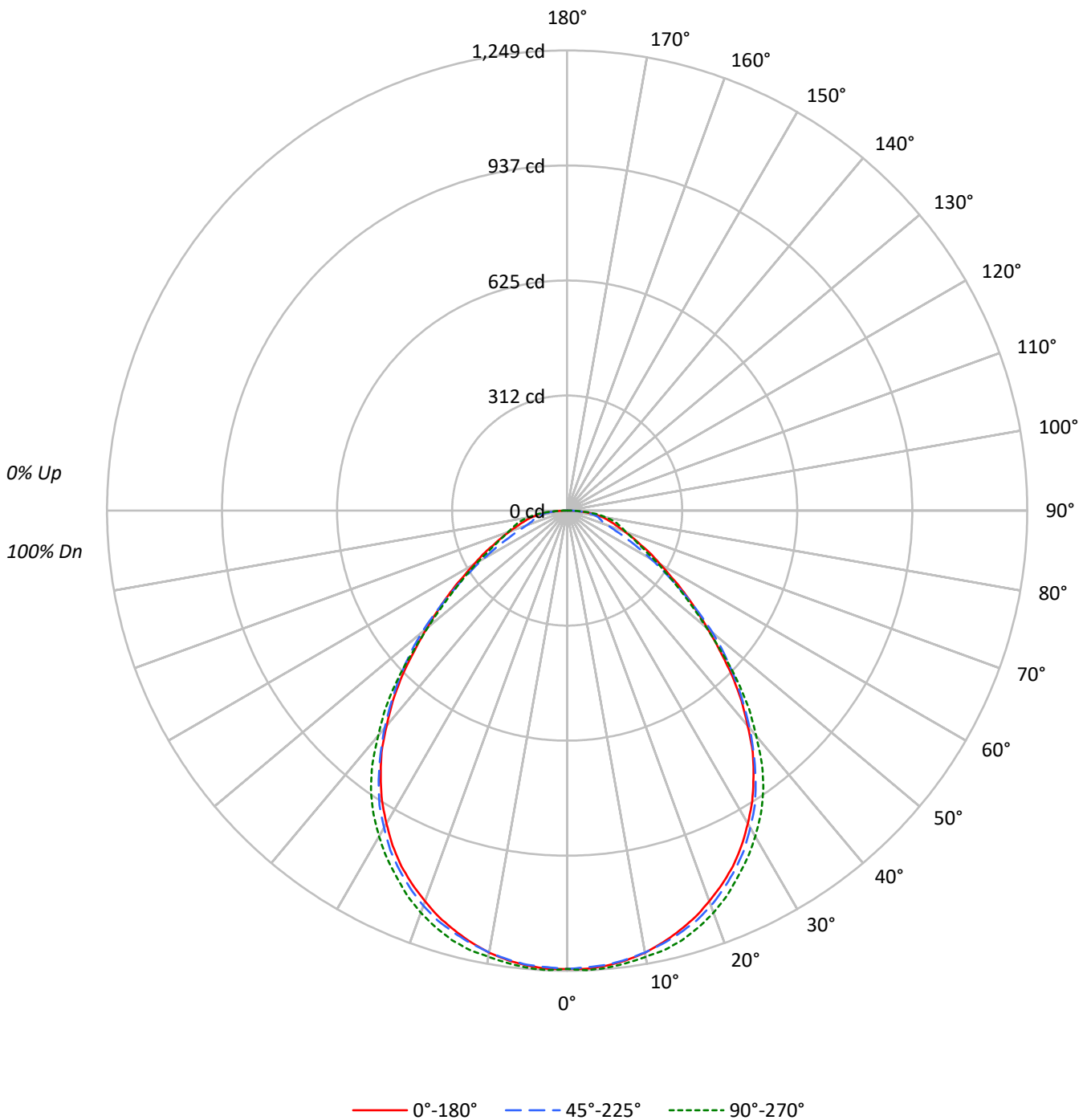
Input Watts (W): 22.971
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	99	92	86	81	88	84	79	85	81	78	82	79	76	74
3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	60	69	63	59	67	62	58	56
5	80	68	59	53	78	67	59	53	65	58	53	63	57	52	61	56	51	49
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	36
9	60	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3348	3348	3348
5°	3349	3344	3365
10°	3329	3327	3360
15°	3287	3304	3363
20°	3230	3268	3326
25°	3161	3197	3255
30°	3047	3088	3173
35°	2897	2931	3049
40°	2679	2707	2803
45°	2406	2449	2488
50°	2081	2155	2059
55°	1815	1768	1744
60°	1572	1415	1511
65°	1405	1111	1357
70°	1304	921	1338
75°	1302	973	1486
80°	1440	1224	1675
85°	1504	1328	1893



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.7	4.3
10°-20°	335.4	12.3
20°-30°	496.0	18.3
30°-40°	559.7	20.6
40°-50°	493.4	18.2
50°-60°	338.5	12.5
60°-70°	199.7	7.4
70°-80°	124.6	4.6
80°-90°	52.0	1.9
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°	949.1	34.9
0°-40°	1508.8	55.5
0°-60°	2340.7	86.1
0°-90°	2717.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2717.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1244	1244	1244	1244	1244	
5°	1240	1237	1238	1242	1246	118
15°	1180	1181	1186	1201	1207	333
25°	1065	1068	1077	1091	1096	489
35°	882	890	892	914	928	550
45°	632	635	644	647	654	486
55°	387	378	377	364	372	347
65°	221	194	174	202	213	222
75°	125	112	94	131	143	134
85°	49	46	43	56	61	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1244.3	1244.3	1244.3	1244.3	1244.3
2.5°	1244.9	1241.8	1240.5	1245.6	1248.7
5°	1239.9	1237.3	1238.0	1242.4	1245.6
7.5°	1231.0	1229.1	1229.1	1235.4	1238.6
10°	1218.4	1217.7	1217.7	1225.3	1229.7
12.5°	1200.7	1201.3	1203.8	1213.9	1221.5
15°	1179.8	1181.1	1186.1	1200.7	1207.0
17.5°	1157.0	1157.0	1167.2	1178.5	1186.1
20°	1128.0	1129.8	1141.2	1153.9	1161.5
22.5°	1098.2	1101.4	1110.9	1125.4	1132.4
25°	1064.7	1068.5	1076.7	1090.6	1096.3
27.5°	1025.5	1030.6	1039.4	1049.6	1061.6
30°	980.6	988.2	993.9	1007.8	1021.1
32.5°	935.1	942.1	948.4	962.9	978.1
35°	882.0	889.6	892.1	913.6	928.2
37.5°	827.6	830.8	832.1	853.6	869.4
40°	762.5	768.8	770.7	787.8	797.9
42.5°	699.9	702.4	706.2	718.9	730.9
45°	632.3	635.4	643.6	647.4	653.8
47.5°	561.4	570.9	580.4	568.4	569.0
50°	497.0	504.5	514.7	491.9	491.9
52.5°	439.4	443.2	443.8	424.9	428.7
55°	386.9	377.5	376.8	364.2	371.8
57.5°	334.5	321.8	317.4	313.6	322.5
60°	292.1	269.3	263.0	268.7	280.7
62.5°	257.3	228.2	216.2	230.8	241.5
65°	220.7	194.1	174.5	201.7	213.1
67.5°	192.2	166.9	141.6	180.2	188.4
70°	165.7	146.1	117.0	163.8	170.1
72.5°	144.2	129.0	101.2	147.9	155.5
75°	125.2	112.5	93.6	130.9	142.9
77.5°	110.0	96.1	87.3	113.2	127.7
80°	92.9	79.0	79.0	94.8	108.1
82.5°	73.3	62.0	63.9	77.1	86.6
85°	48.7	45.5	43.0	56.3	61.3
87.5°	24.7	25.3	22.8	29.1	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)