

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: P292518

Luminaire Tested: **22GR-LD5-20-A19/156-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292518
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33284)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-20-A19/156-UNV-L83050-W2A1-U-3500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2047.0 lumens
Efficiency: N/A
Efficacy: 132.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.21
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

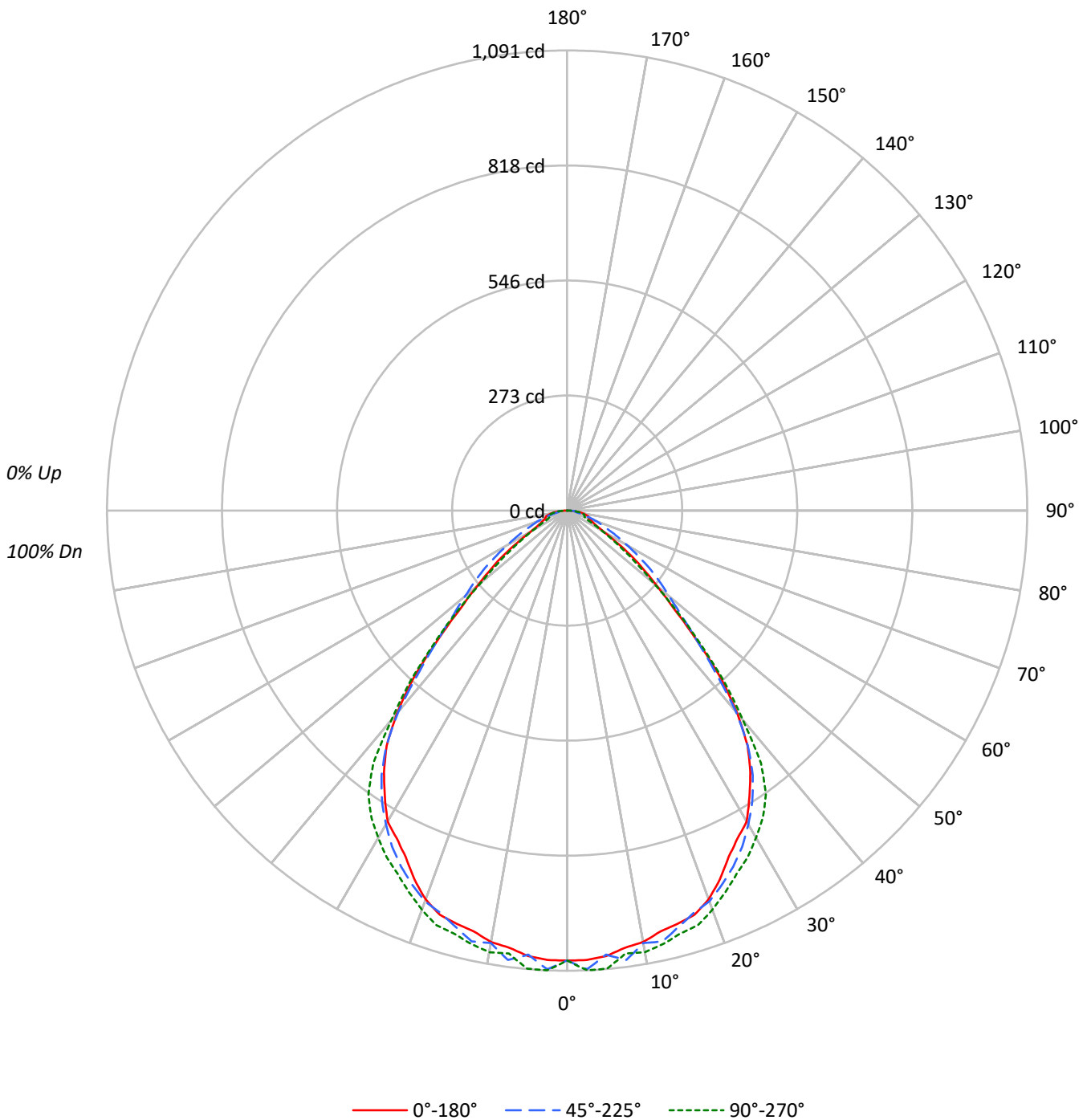
Input Watts (W): 15.438
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	91	90	88					88			
2	103	96	90	85	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44					44			
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41	40					40			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2871	2871	2871
5°	2864	2854	2944
10°	2837	2845	2905
15°	2824	2846	2891
20°	2809	2823	2884
25°	2689	2765	2822
30°	2645	2669	2783
35°	2487	2519	2698
40°	2204	2189	2275
45°	1646	1650	1696
50°	1159	1318	1123
55°	855	1113	767
60°	535	880	501
65°	436	697	350
70°	433	581	345
75°	536	426	446
80°	598	336	545
85°	596	627	611



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.6	5.0
10°-20°	289.3	14.1
20°-30°	428.4	20.9
30°-40°	479.9	23.4
40°-50°	352.6	17.2
50°-60°	197.1	9.6
60°-70°	109.8	5.4
70°-80°	64.5	3.2
80°-90°	23.7	1.2
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°	819.3	40.0
0°-40°	1299.2	63.5
0°-60°	1848.9	90.3
0°-90°	2047.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2047.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1067	1067	1067	1067	1067	
5°	1060	1080	1057	1078	1090	100
15°	1014	1020	1022	1037	1038	286
25°	906	913	931	944	951	420
35°	757	758	767	802	821	469
45°	433	468	434	464	446	338
55°	182	222	237	237	164	163
65°	68	122	110	140	55	71
75°	52	73	41	82	43	52
85°	19	28	20	26	20	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1066.8	1066.8	1066.8	1066.8	1066.8
2.5°	1066.4	1076.0	1088.5	1090.0	1091.0
5°	1060.1	1079.9	1056.7	1078.4	1090.0
7.5°	1045.6	1057.7	1074.6	1052.9	1059.1
10°	1038.4	1041.3	1041.3	1068.3	1063.0
12.5°	1022.0	1041.3	1046.1	1040.8	1052.4
15°	1013.8	1020.1	1021.5	1036.9	1037.9
17.5°	1004.6	1003.2	999.8	1010.9	1030.7
20°	981.0	975.7	985.8	999.3	1007.0
22.5°	946.3	947.7	959.8	970.9	979.5
25°	905.8	913.0	931.3	944.3	950.6
27.5°	875.4	886.0	898.5	914.0	926.5
30°	851.3	850.3	859.0	881.2	895.6
32.5°	804.5	807.8	817.0	843.5	863.8
35°	757.2	757.7	766.9	801.6	821.4
37.5°	702.7	698.8	704.2	741.8	754.8
40°	627.5	628.4	623.1	649.7	647.7
42.5°	539.7	547.4	519.9	554.6	552.2
45°	432.6	467.8	433.6	464.5	445.6
47.5°	341.5	393.6	365.1	387.8	352.6
50°	276.8	330.4	314.9	325.1	268.2
52.5°	227.2	270.6	275.4	277.8	209.3
55°	182.3	221.9	237.3	236.8	163.5
57.5°	134.6	180.4	198.2	205.5	124.0
60°	99.4	150.0	163.5	179.4	93.1
62.5°	80.1	131.7	135.0	157.2	70.9
65°	68.5	121.5	109.5	140.3	55.0
67.5°	60.8	113.3	89.2	125.4	46.8
70°	55.0	100.8	73.8	112.4	43.9
72.5°	53.5	85.8	56.9	100.3	43.4
75°	51.6	72.8	41.0	82.5	42.9
77.5°	44.4	62.2	29.4	63.7	40.0
80°	38.6	49.7	21.7	47.7	35.2
82.5°	29.9	37.6	19.3	36.2	28.5
85°	19.3	28.5	20.3	26.0	19.8
87.5°	9.2	15.9	14.5	14.0	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)