

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: P292613

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292613  
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-LD5-43-A19/156-UNV-L82765-W2A1-U-5700K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4470.0 lumens  
Efficiency: N/A  
Efficacy: 123.6 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

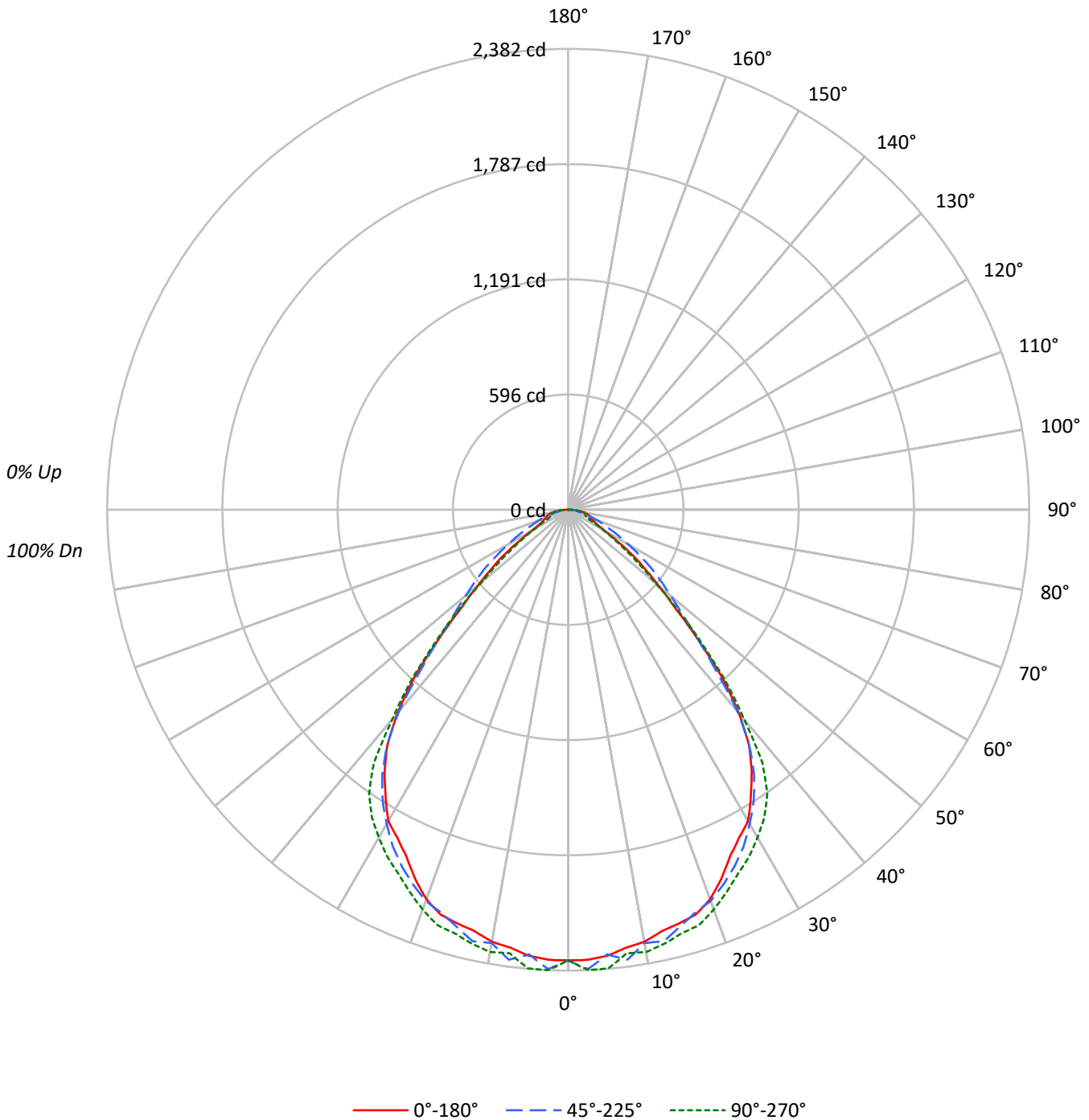
Input Watts (W): 36.177  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6269	6269	6269
5°	6253	6233	6430
10°	6196	6213	6343
15°	6167	6214	6314
20°	6135	6165	6297
25°	5873	6038	6163
30°	5776	5828	6077
35°	5432	5501	5892
40°	4813	4780	4969
45°	3595	3603	3703
50°	2531	2879	2452
55°	1868	2431	1675
60°	1168	1921	1094
65°	953	1522	765
70°	945	1268	754
75°	1172	931	974
80°	1306	735	1192
85°	1300	1365	1334



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	221.8	5.0
10°-20°	631.7	14.1
20°-30°	935.6	20.9
30°-40°	1047.9	23.4
40°-50°	770.0	17.2
50°-60°	430.4	9.6
60°-70°	239.9	5.4
70°-80°	140.9	3.2
80°-90°	51.8	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°	1789.0	40.0
0°-40°	2836.9	63.5
0°-60°	4037.4	90.3
0°-90°	4470.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4470.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2330	2330	2330	2330	2330	
5°	2315	2358	2308	2355	2380	219
15°	2214	2228	2231	2264	2266	625
25°	1978	1994	2034	2062	2076	917
35°	1654	1654	1675	1750	1794	1024
45°	945	1022	947	1014	973	738
55°	398	484	518	517	357	355
65°	150	265	239	306	120	155
75°	113	159	90	180	94	113
85°	42	62	44	57	43	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2329.6	2329.6	2329.6	2329.6	2329.6
2.5°	2328.6	2349.7	2377.0	2380.2	2382.3
5°	2314.9	2358.1	2307.5	2354.9	2380.2
7.5°	2283.3	2309.6	2346.5	2299.1	2312.8
10°	2267.5	2273.8	2273.8	2332.8	2321.2
12.5°	2231.7	2273.8	2284.4	2272.8	2298.0
15°	2213.8	2227.5	2230.6	2264.3	2266.4
17.5°	2193.8	2190.6	2183.2	2207.5	2250.7
20°	2142.2	2130.6	2152.7	2182.2	2199.0
22.5°	2066.3	2069.5	2095.8	2120.1	2139.0
25°	1977.9	1993.7	2033.7	2062.1	2075.8
27.5°	1911.5	1934.7	1962.1	1995.8	2023.2
30°	1858.9	1856.8	1875.7	1924.2	1955.8
32.5°	1756.7	1764.1	1784.1	1842.0	1886.2
35°	1653.5	1654.5	1674.6	1750.4	1793.6
37.5°	1534.5	1526.1	1537.6	1619.8	1648.2
40°	1370.2	1372.3	1360.7	1418.6	1414.4
42.5°	1178.5	1195.4	1135.3	1211.2	1205.9
45°	944.7	1021.6	946.8	1014.2	973.1
47.5°	745.7	859.4	797.3	846.8	769.9
50°	604.5	721.4	687.7	709.8	585.6
52.5°	496.0	590.8	601.4	606.6	457.1
55°	398.1	484.5	518.2	517.1	357.0
57.5°	293.8	393.9	432.9	448.7	270.7
60°	217.0	327.5	357.0	391.8	203.3
62.5°	174.8	287.5	294.9	343.3	154.8
65°	149.6	265.4	239.1	306.5	120.1
67.5°	132.7	247.5	194.8	273.8	102.2
70°	120.1	220.1	161.1	245.4	95.8
72.5°	116.9	187.5	124.3	219.1	94.8
75°	112.7	159.0	89.5	180.1	93.7
77.5°	96.9	135.9	64.2	139.0	87.4
80°	84.3	108.5	47.4	104.3	76.9
82.5°	65.3	82.1	42.1	79.0	62.1
85°	42.1	62.1	44.2	56.9	43.2
87.5°	20.0	34.8	31.6	30.5	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)