

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: NEO-RAY

Report Number: P231670

Luminaire Tested: **S122-DR-1-40-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231670  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33909)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122-DR-1-40-X-0048-1-U-DD-1-W  
Description: DEFINE 2 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

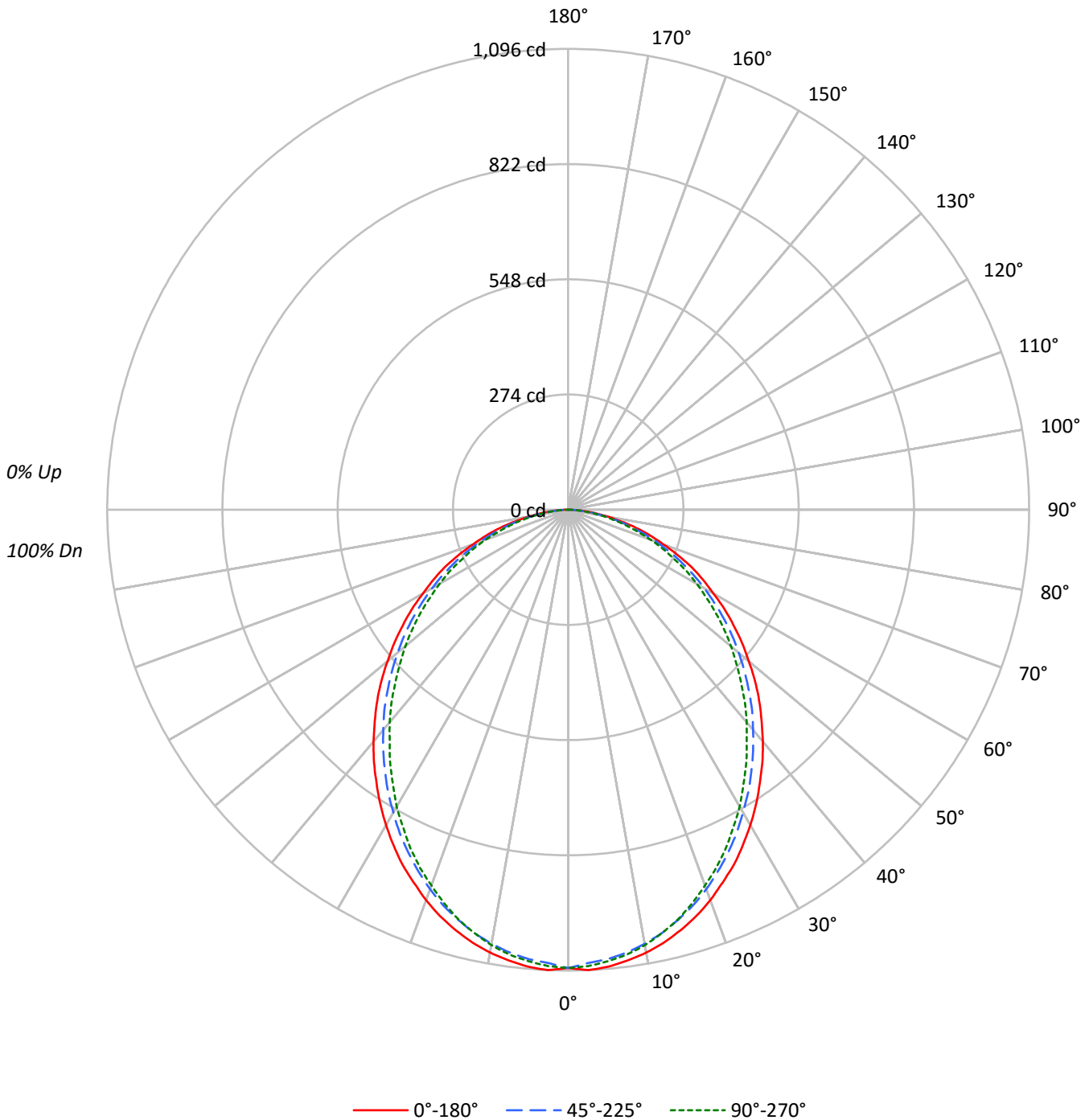
Lumens per Lamp: N/A  
Luminaire Lumens: 2657.8 lumens  
Efficiency: N/A  
Efficacy: 95.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.14' x L: 3.92' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.9  
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	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	65	56	49	75	63	55	49	61	54	48	59	53	48	58	52	47	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	46	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	21397	21397	21397
5°	21502	21147	21242
10°	21322	20892	20963
15°	21032	20522	20497
20°	20643	20069	19868
25°	20184	19485	19225
30°	19629	18843	18489
35°	19032	18198	17683
40°	18448	17528	16913
45°	17823	16859	16126
50°	17120	16167	15437
55°	16438	15456	14675
60°	15661	14672	13875
65°	15077	13856	12908
70°	13821	12787	11961
75°	12719	11445	10626
80°	10830	9880	9213
85°	8897	7815	7005



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	3.9
10°-20°	286.5	10.8
20°-30°	416.7	15.7
30°-40°	477.3	18.0
40°-50°	470.2	17.7
50°-60°	405.4	15.3
60°-70°	296.3	11.1
70°-80°	161.7	6.1
80°-90°	41.3	1.6
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°	805.6	30.3
0°-40°	1282.9	48.3
0°-60°	2158.5	81.2
0°-90°	2657.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2657.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1090	1090	1090	1090	1090	
5°	1091	1085	1073	1080	1078	103
15°	1035	1025	1010	1012	1009	292
25°	932	920	900	895	888	429
35°	794	782	759	745	738	497
45°	642	629	607	590	581	495
55°	480	473	452	435	429	430
65°	325	314	298	285	278	319
75°	168	159	151	144	140	177
85°	40	37	35	32	31	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1090.0	1090.0	1090.0	1090.0	1090.0
2.5°	1096.0	1091.2	1079.2	1088.8	1086.4
5°	1091.2	1085.2	1073.2	1080.4	1078.0
7.5°	1081.6	1075.6	1062.5	1069.7	1067.3
10°	1069.7	1061.3	1048.1	1054.1	1051.7
12.5°	1054.1	1044.5	1031.3	1036.1	1031.3
15°	1034.9	1025.3	1009.8	1012.2	1008.6
17.5°	1013.4	1002.6	987.0	987.0	981.0
20°	988.2	977.4	960.7	957.1	951.1
22.5°	959.5	948.7	930.7	928.3	921.1
25°	931.9	919.9	899.6	894.8	887.6
27.5°	899.6	887.6	867.2	857.6	850.5
30°	866.0	852.9	831.3	822.9	815.7
32.5°	831.3	819.3	796.6	784.6	775.0
35°	794.2	782.2	759.4	745.0	737.9
37.5°	758.2	743.8	722.3	706.7	697.1
40°	719.9	705.5	684.0	668.4	660.0
42.5°	680.4	667.2	646.8	628.9	621.7
45°	642.0	628.9	607.3	590.5	580.9
47.5°	602.5	589.3	567.8	549.8	542.6
50°	560.6	551.0	529.4	511.5	505.5
52.5°	521.1	511.5	491.1	473.1	467.2
55°	480.3	473.1	451.6	434.8	428.8
57.5°	440.8	432.4	412.1	397.7	389.3
60°	398.9	391.7	373.7	359.3	353.4
62.5°	361.7	353.4	335.4	322.2	317.4
65°	324.6	313.8	298.3	285.1	277.9
67.5°	281.5	275.5	259.9	246.8	244.4
70°	240.8	234.8	222.8	212.0	208.4
72.5°	204.8	197.6	185.7	177.3	172.5
75°	167.7	159.3	150.9	143.7	140.1
77.5°	129.4	125.8	117.4	111.4	109.0
80°	95.8	93.4	87.4	81.5	81.5
82.5°	67.1	63.5	58.7	55.1	53.9
85°	39.5	37.1	34.7	32.3	31.1
87.5°	16.8	15.6	13.2	12.0	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)