

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: P231668

Luminaire Tested: **S122-DR-1-30-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231668  
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-1-30-X-0048-1-U-DD-1-W  
Description: DEFINE 2 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2507.4 lumens  
Efficiency: N/A  
Efficacy: 89.9 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

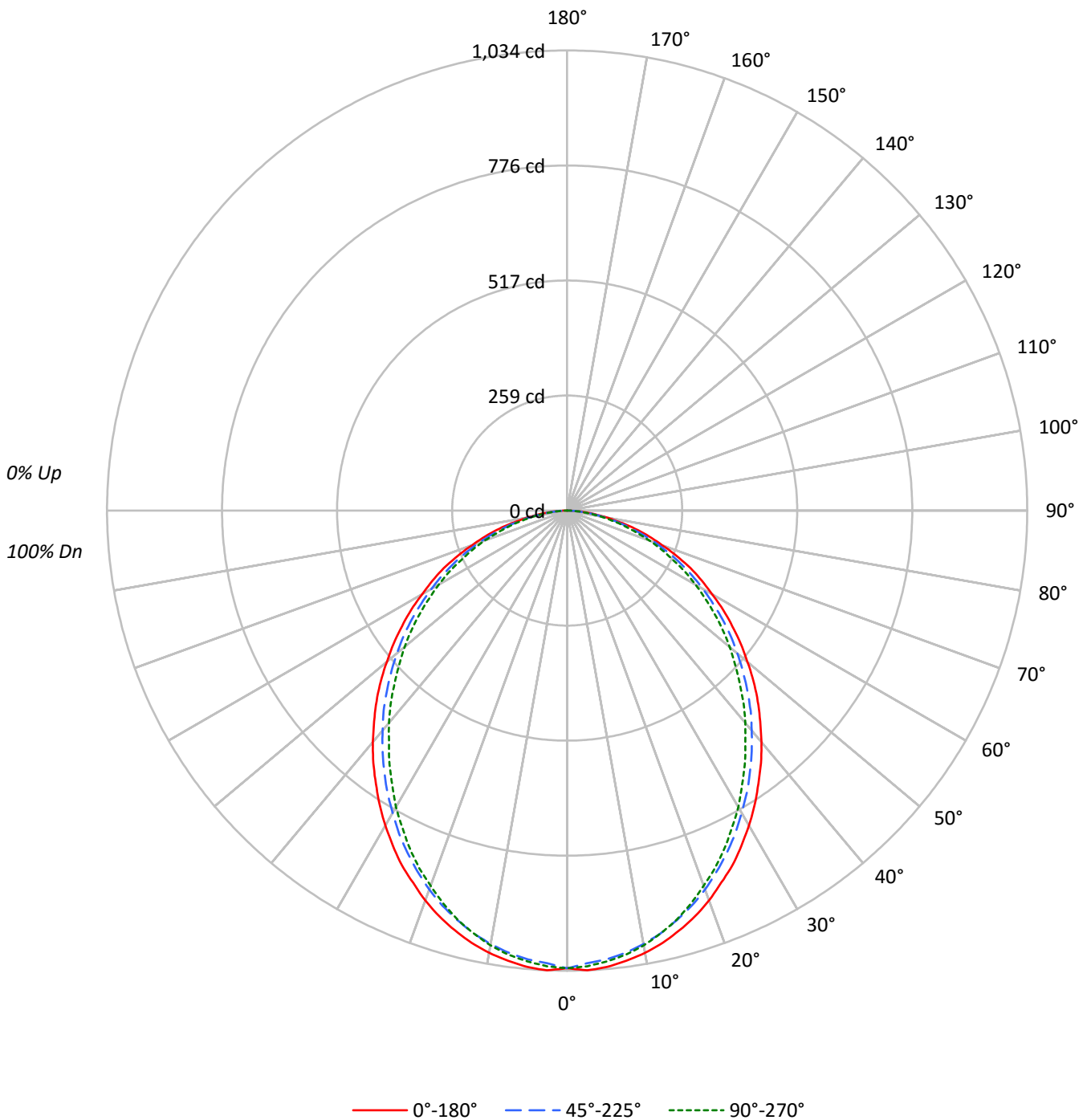
Input Watts (W): 27.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	20186	20186	20186
5°	20286	19951	20040
10°	20114	19710	19777
15°	19841	19359	19337
20°	19476	18933	18742
25°	19043	18380	18135
30°	18519	17775	17442
35°	17954	17168	16681
40°	17402	16533	15954
45°	16815	15904	15216
50°	16152	15254	14564
55°	15507	14579	13844
60°	14774	13843	13089
65°	14223	13071	12179
70°	13034	12064	11284
75°	11999	10800	10027
80°	10219	9326	8682
85°	8401	7388	6622



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.6	3.9
10°-20°	270.2	10.8
20°-30°	393.1	15.7
30°-40°	450.3	18.0
40°-50°	443.6	17.7
50°-60°	382.5	15.3
60°-70°	279.5	11.1
70°-80°	152.5	6.1
80°-90°	39.0	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°	760.0	30.3
0°-40°	1210.3	48.3
0°-60°	2036.3	81.2
0°-90°	2507.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2507.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1028	1028	1028	1028	1028	
5°	1030	1024	1012	1019	1017	98
15°	976	967	953	955	952	275
25°	879	868	849	844	837	404
35°	749	738	716	703	696	469
45°	606	593	573	557	548	467
55°	453	446	426	410	404	405
65°	306	296	281	269	262	301
75°	158	150	142	136	132	167
85°	37	35	33	30	29	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1028.3	1028.3	1028.3	1028.3	1028.3
2.5°	1034.0	1029.5	1018.2	1027.2	1024.9
5°	1029.5	1023.8	1012.5	1019.3	1017.0
7.5°	1020.4	1014.8	1002.3	1009.1	1006.8
10°	1009.1	1001.2	988.8	994.4	992.2
12.5°	994.4	985.4	972.9	977.5	972.9
15°	976.3	967.3	952.6	954.9	951.5
17.5°	956.0	945.8	931.1	931.1	925.5
20°	932.3	922.1	906.3	902.9	897.2
22.5°	905.1	895.0	878.0	875.8	869.0
25°	879.2	867.9	848.6	844.1	837.3
27.5°	848.6	837.3	818.1	809.1	802.3
30°	817.0	804.6	784.2	776.3	769.5
32.5°	784.2	772.9	751.5	740.2	731.1
35°	749.2	737.9	716.4	702.9	696.1
37.5°	715.3	701.7	681.4	666.7	657.7
40°	679.1	665.6	645.2	630.6	622.6
42.5°	641.9	629.4	610.2	593.3	586.5
45°	605.7	593.3	572.9	557.1	548.1
47.5°	568.4	556.0	535.6	518.7	511.9
50°	528.9	519.8	499.5	482.5	476.9
52.5°	491.6	482.5	463.3	446.4	440.7
55°	453.1	446.4	426.0	410.2	404.5
57.5°	415.8	407.9	388.7	375.2	367.3
60°	376.3	369.5	352.6	339.0	333.4
62.5°	341.3	333.4	316.4	304.0	299.5
65°	306.2	296.1	281.4	268.9	262.2
67.5°	265.6	259.9	245.2	232.8	230.5
70°	227.1	221.5	210.2	200.0	196.6
72.5°	193.2	186.5	175.2	167.2	162.7
75°	158.2	150.3	142.4	135.6	132.2
77.5°	122.0	118.7	110.7	105.1	102.8
80°	90.4	88.1	82.5	76.8	76.8
82.5°	63.3	59.9	55.4	52.0	50.9
85°	37.3	35.0	32.8	30.5	29.4
87.5°	15.8	14.7	12.4	11.3	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)