

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: P231726

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231726  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33911)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122-RDR-LO-40-X-0048-1-U-DD-1-W  
Description: DEFINE 2 LED LINEAR REGRESSED 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: 1143.9 lumens  
Efficiency: N/A  
Efficacy: 84.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.12  
Luminous Opening: Rectangular (W 0.14' x L: 3.92' x H: 0')  
CIE Type: Direct

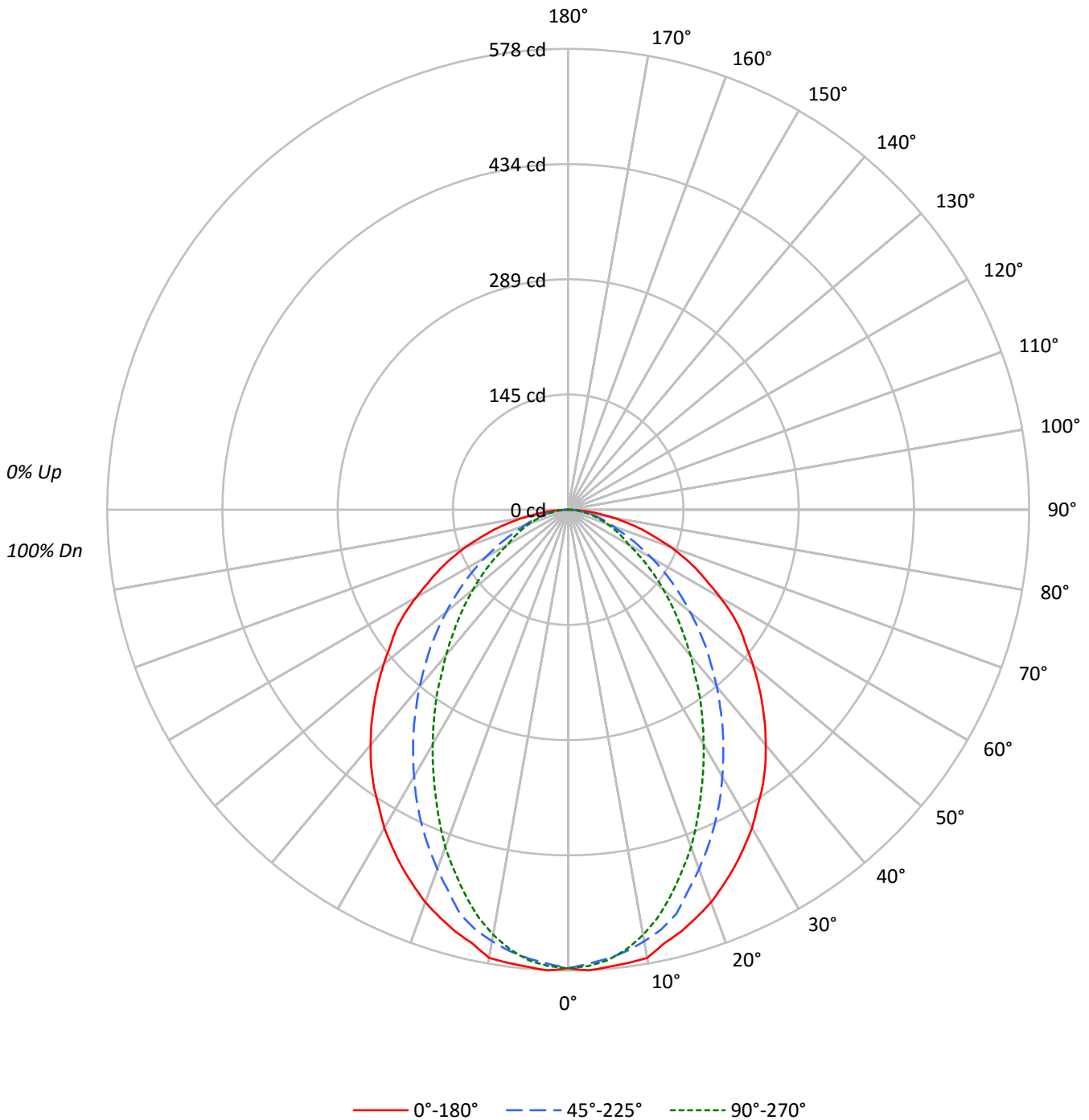
Input Watts (W): 13.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	92	86	81	88	83	79	85	81	78	82	79	76	74
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	67	60	84	73	66	60	71	64	59	69	63	58	67	62	58	56
5	79	67	59	53	77	66	59	53	64	57	52	62	56	52	61	55	51	49
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39
8	64	51	43	38	63	51	43	38	49	43	38	48	42	37	47	41	37	35
9	60	48	40	34	59	47	39	34	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	29

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

	0°	45°	90°
0°	11289	11289	11289
5°	11344	11137	11181
10°	11376	10957	10794
15°	11127	10657	10153
20°	10942	10021	9411
25°	10700	9422	8527
30°	10449	8761	7700
35°	10175	8100	6911
40°	9876	7431	6104
45°	9553	6782	5402
50°	9229	6096	4749
55°	9039	5435	4114
60°	8637	4719	3443
65°	8273	3995	3228
70°	7846	3386	3007
75°	7236	3140	2761
80°	6421	2804	2498
85°	5473	2478	2230



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.9	4.7
10°-20°	147.0	12.8
20°-30°	202.5	17.7
30°-40°	216.7	18.9
40°-50°	197.6	17.3
50°-60°	155.7	13.6
60°-70°	102.6	9.0
70°-80°	53.5	4.7
80°-90°	14.4	1.3
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°	403.4	35.3
0°-40°	620.1	54.2
0°-60°	973.4	85.1
0°-90°	1143.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1143.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	575	575	575	575	575	
5°	576	572	565	570	567	55
15°	548	539	524	508	500	154
25°	494	475	435	408	394	227
35°	425	393	338	300	288	265
45°	344	304	244	207	195	266
55°	264	216	159	130	120	235
65°	178	132	86	71	70	176
75°	95	56	41	38	36	101
85°	24	12	11	10	10	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	575.1	575.1	575.1	575.1	575.1
2.5°	578.4	575.7	570.1	574.6	572.9
5°	575.7	572.3	565.2	569.6	567.4
7.5°	573.4	568.5	558.6	560.2	556.4
10°	570.7	564.6	549.7	545.9	541.5
12.5°	556.9	553.6	539.3	528.2	522.7
15°	547.5	539.3	524.4	508.4	499.6
17.5°	536.0	526.6	500.7	485.2	474.8
20°	523.8	510.6	479.7	462.6	450.5
22.5°	508.9	494.6	457.7	436.2	422.4
25°	494.0	475.3	435.0	407.5	393.7
27.5°	477.5	456.0	411.3	381.0	366.7
30°	461.0	435.6	386.5	353.4	339.7
32.5°	441.7	414.6	361.7	325.3	313.2
35°	424.6	392.6	338.0	300.5	288.4
37.5°	405.8	371.1	313.2	275.1	260.8
40°	385.4	348.5	290.0	251.4	238.2
42.5°	365.0	326.4	265.8	227.2	215.6
45°	344.1	303.8	244.3	206.8	194.6
47.5°	323.1	282.3	221.1	185.8	174.8
50°	302.2	260.3	199.6	166.5	155.5
52.5°	281.2	238.2	178.7	147.2	137.8
55°	264.1	216.1	158.8	129.6	120.2
57.5°	243.7	195.2	139.5	112.5	103.1
60°	220.0	173.1	120.2	94.3	87.7
62.5°	197.4	152.7	102.0	81.1	78.3
65°	178.1	131.8	86.0	71.1	69.5
67.5°	157.1	111.9	69.5	62.3	60.7
70°	136.7	92.6	59.0	53.5	52.4
72.5°	114.1	73.3	50.2	45.2	44.1
75°	95.4	56.2	41.4	37.5	36.4
77.5°	75.0	40.8	32.5	29.8	29.2
80°	56.8	29.8	24.8	23.2	22.1
82.5°	38.0	20.4	17.1	16.5	16.0
85°	24.3	12.1	11.0	10.5	9.9
87.5°	9.9	5.5	5.0	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)