

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057891

Luminaire Tested: S122RDR-S290D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1057891  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S290D840-X4F0-XX-UDD-SVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

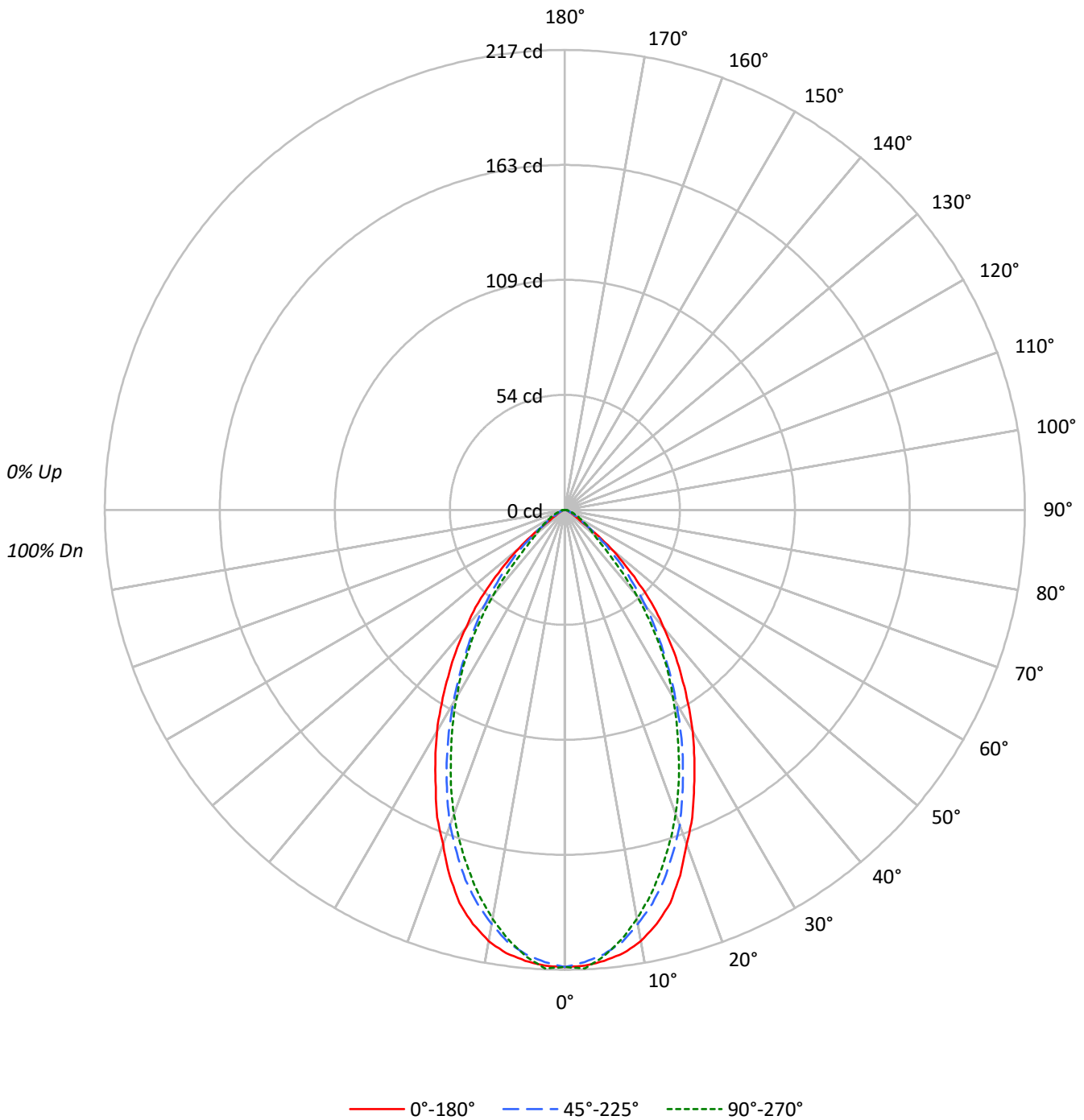
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 232.0 lumens  
Efficiency: N/A  
Efficacy: 18.6 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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: 24 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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92			92	
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84			84	
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76			76	
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70			70	
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64			64	
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59			59	
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54			54	
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50			50	
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47			47	
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44			44	

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

	0°	45°	90°
0°	3980	3980	3980
5°	3957	3899	3916
10°	3873	3719	3671
15°	3668	3454	3356
20°	3297	3110	3002
25°	2936	2683	2586
30°	2570	2239	2173
35°	2163	1813	1755
40°	1742	1431	1265
45°	1302	1033	752
50°	815	669	494
55°	277	360	402
60°	159	221	317
65°	114	148	245
70°	92	119	183
75°	64	93	157
80°	43	96	138
85°	0	0	85

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1302 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	19.9	8.6
10°-20°	50.9	21.9
20°-30°	61.3	26.4
30°-40°	52.4	22.6
40°-50°	30.7	13.2
50°-60°	11.1	4.8
60°-70°	3.9	1.7
70°-80°	1.6	0.7
80°-90°	0.3	0.1
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°	132.1	56.9
0°-40°	184.4	79.5
0°-60°	226.2	97.5
0°-90°	232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	232.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	216	216	216	216	216	
5°	214	214	210	211	211	20
15°	192	189	181	177	176	53
25°	144	138	132	130	127	66
35°	96	89	80	80	78	60
45°	50	45	40	33	29	39
55°	9	12	11	12	12	11
65°	3	3	3	5	6	3
75°	1	1	1	2	2	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	215.7	215.7	215.7	215.7	215.7
2.5°	215.3	215.7	213.6	215.7	216.6
5°	213.6	214.0	210.5	211.4	211.4
7.5°	211.0	210.5	205.8	204.9	204.5
10°	206.7	205.4	198.5	197.2	195.9
12.5°	200.2	197.6	190.3	188.2	186.4
15°	192.0	189.0	180.8	177.4	175.7
17.5°	180.8	177.4	169.6	166.2	164.5
20°	167.9	164.5	158.4	154.6	152.9
22.5°	157.2	151.6	145.1	142.5	140.4
25°	144.2	138.2	131.8	129.6	127.0
27.5°	132.2	124.9	118.4	116.7	114.5
30°	120.6	112.8	105.1	105.1	102.0
32.5°	108.1	100.8	92.6	92.1	90.4
35°	96.0	88.7	80.5	79.7	77.9
37.5°	84.8	77.5	69.8	67.2	65.0
40°	72.3	65.9	59.4	55.1	52.5
42.5°	62.4	55.1	48.7	43.5	40.0
45°	49.9	44.8	39.6	33.2	28.8
47.5°	38.8	35.3	31.0	23.7	21.5
50°	28.4	26.7	23.3	17.7	17.2
52.5°	18.1	18.9	16.8	13.8	15.1
55°	8.6	12.1	11.2	11.6	12.5
57.5°	5.6	6.0	8.2	9.5	10.3
60°	4.3	4.3	6.0	7.8	8.6
62.5°	3.4	3.4	4.7	6.5	6.9
65°	2.6	3.0	3.4	4.7	5.6
67.5°	2.2	2.2	2.6	3.9	4.3
70°	1.7	1.7	2.2	3.0	3.4
72.5°	1.3	1.3	1.7	2.6	2.6
75°	0.9	1.3	1.3	1.7	2.2
77.5°	0.9	0.9	0.9	1.3	1.7
80°	0.4	0.4	0.9	0.9	1.3
82.5°	0.4	0.4	0.4	0.4	0.9
85°	0.0	0.0	0.0	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)