

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: P1060445

Luminaire Tested: S124RDR-S350D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060445  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S350D940-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

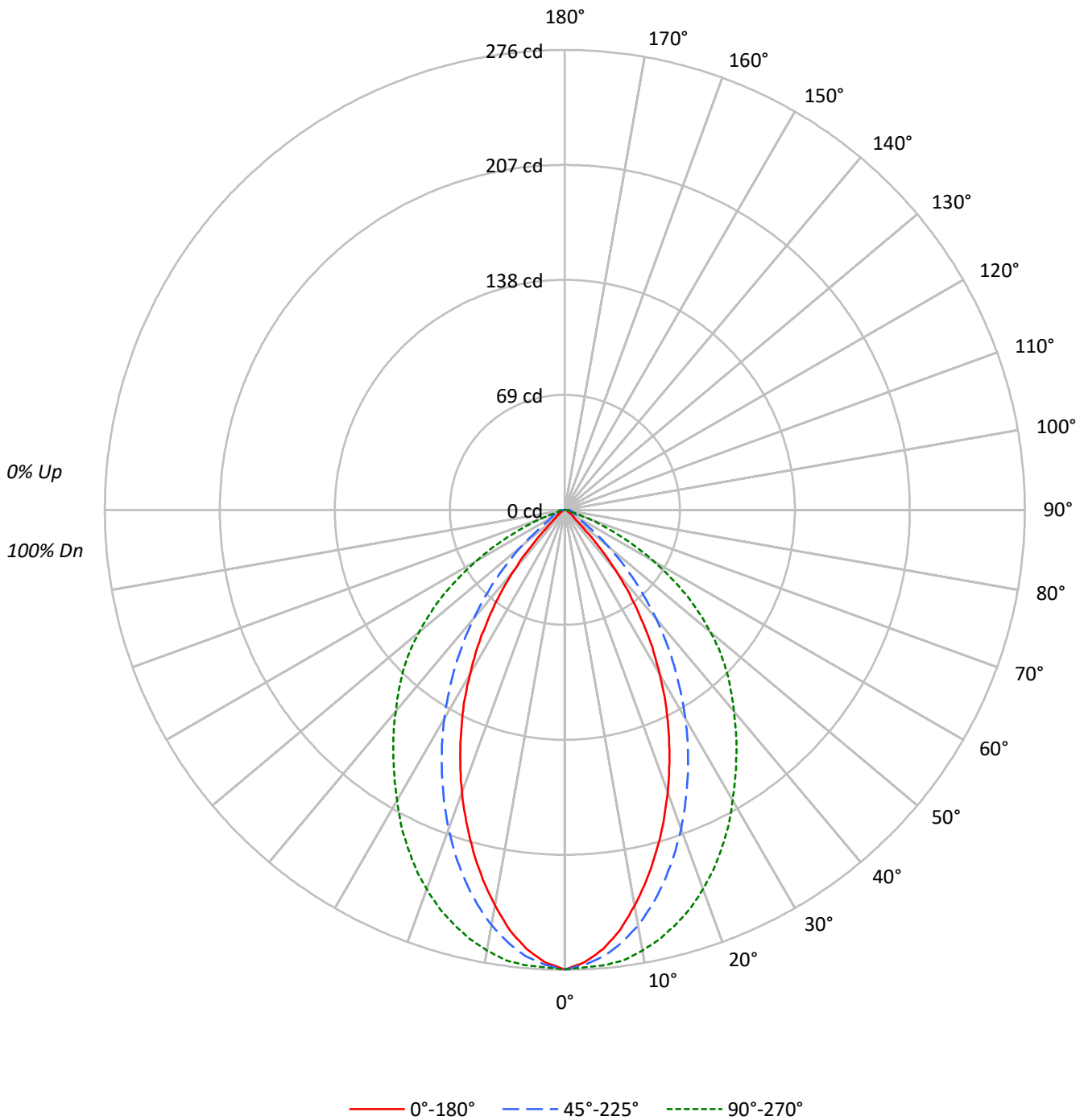
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 346.1 lumens  
Efficiency: N/A  
Efficacy: 27.7 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
Luminous Opening: Rectangular (W 0.31' 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				
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39				

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

	0°	45°	90°
0°	2375	2375	2375
5°	2286	2324	2371
10°	2108	2214	2348
15°	1892	2055	2296
20°	1654	1868	2219
25°	1399	1659	2121
30°	1130	1439	2002
35°	841	1202	1886
40°	534	952	1774
45°	213	699	1673
50°	92	445	1527
55°	71	230	1333
60°	50	157	1057
65°	37	157	721
70°	38	138	332
75°	50	146	133
80°	74	164	144
85°	148	287	217

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1673 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.2	7.3
10°-20°	65.1	18.8
20°-30°	82.2	23.8
30°-40°	75.5	21.8
40°-50°	51.5	14.9
50°-60°	27.9	8.1
60°-70°	11.9	3.4
70°-80°	4.1	1.2
80°-90°	2.6	0.8
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°	172.6	49.9
0°-40°	248.1	71.7
0°-60°	327.6	94.6
0°-90°	346.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	346.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	276	276	276	276	276	
5°	264	268	269	271	274	25
15°	212	219	230	247	258	59
25°	147	157	175	202	223	67
35°	80	91	114	150	179	50
45°	18	28	57	102	137	16
55°	5	5	15	56	89	4
65°	2	2	8	18	35	2
75°	2	4	4	4	4	2
85°	2	3	3	3	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	275.8	275.8	275.8	275.8	275.8
2.5°	271.8	275.1	273.2	274.0	274.7
5°	264.5	268.5	268.9	271.1	274.3
7.5°	254.2	259.0	261.9	267.4	272.5
10°	241.1	246.9	253.2	261.9	268.5
12.5°	227.2	233.4	242.6	255.0	263.7
15°	212.2	219.2	230.5	246.9	257.5
17.5°	196.5	204.2	217.7	237.1	250.6
20°	180.5	188.9	203.8	225.8	242.2
22.5°	164.0	172.8	189.2	214.1	233.4
25°	147.2	156.7	174.6	201.6	223.2
27.5°	131.1	139.9	159.6	189.2	213.0
30°	113.6	123.5	144.7	176.4	201.3
32.5°	97.5	107.0	129.3	163.3	190.3
35°	80.0	90.6	114.3	150.1	179.4
37.5°	63.6	73.8	99.7	137.7	168.8
40°	47.5	58.1	84.7	125.3	157.8
42.5°	31.8	43.1	70.5	112.5	147.6
45°	17.5	28.1	57.4	101.6	137.4
47.5°	9.1	15.3	44.9	90.6	126.4
50°	6.9	8.4	33.2	78.5	114.0
52.5°	5.8	6.2	22.6	66.5	101.6
55°	4.7	5.1	15.3	55.9	88.8
57.5°	3.7	4.0	11.0	45.7	74.5
60°	2.9	3.3	9.1	35.1	61.4
62.5°	2.2	2.6	8.8	25.9	48.2
65°	1.8	2.2	7.7	17.5	35.4
67.5°	1.5	2.2	6.6	11.3	23.7
70°	1.5	2.9	5.5	7.3	13.2
72.5°	1.5	3.3	4.7	4.7	4.7
75°	1.5	4.0	4.4	4.0	4.0
77.5°	1.5	3.7	3.7	3.7	3.7
80°	1.5	3.3	3.3	3.3	2.9
82.5°	1.5	2.9	3.3	3.3	2.6
85°	1.5	2.9	2.9	2.9	2.2
87.5°	1.1	2.9	2.9	2.9	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)