

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: P1060223

Luminaire Tested: S124RDR-S1020D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060223  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S1020D830-X4F0-XX-UDD-SVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

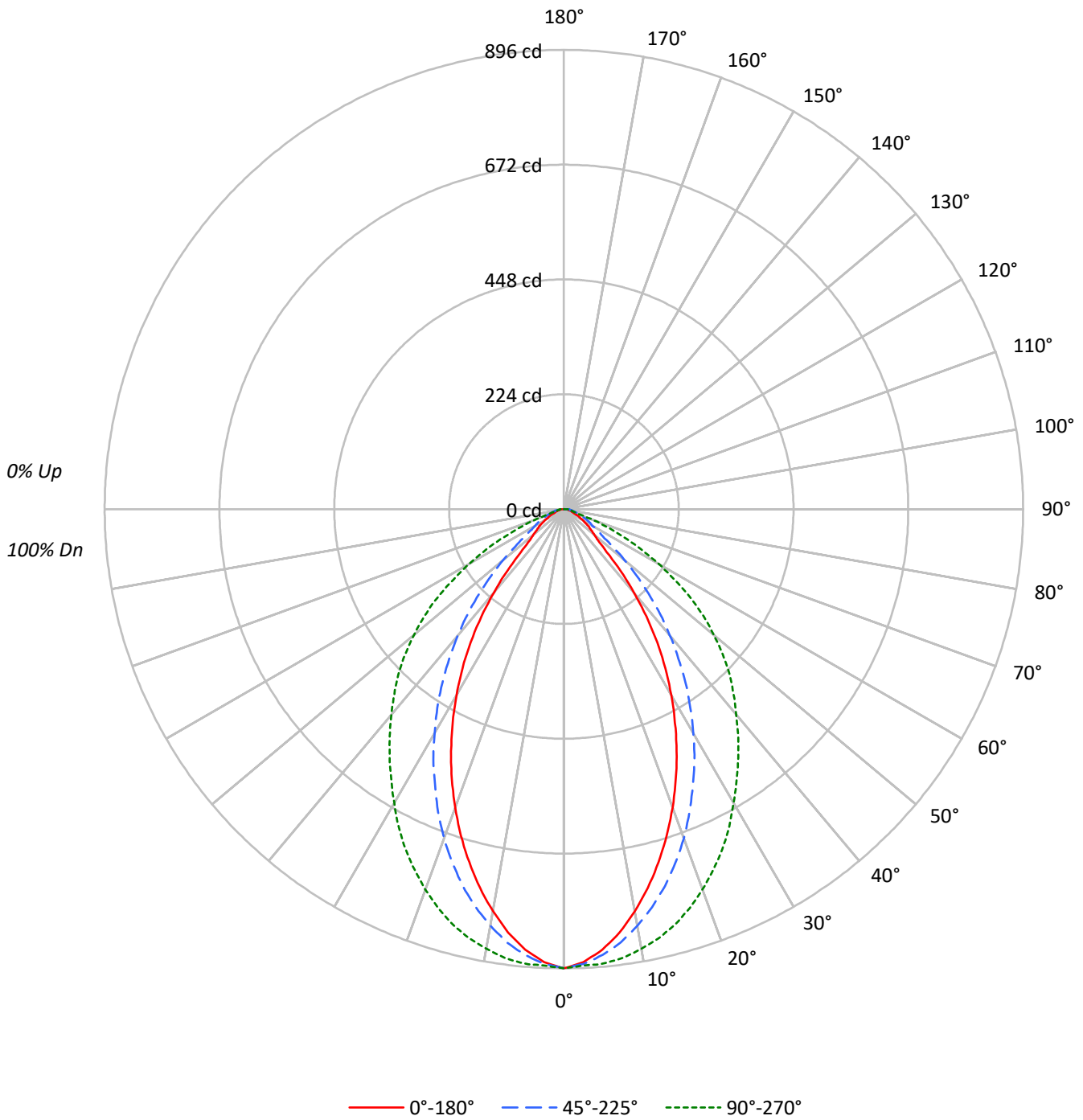
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1259.7 lumens  
Efficiency: N/A  
Efficacy: 36.0 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63				63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57				57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43				43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36				36

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

	0°	45°	90°
0°	7714	7714	7714
5°	7458	7546	7694
10°	6966	7216	7614
15°	6361	6788	7479
20°	5682	6266	7238
25°	4949	5652	6952
30°	4170	5020	6584
35°	3331	4349	6231
40°	2395	3613	5880
45°	1443	2845	5565
50°	1038	2062	5115
55°	872	1386	4534
60°	706	1099	3651
65°	558	998	2624
70°	488	833	1405
75°	456	759	682
80°	451	793	620
85°	672	1126	790

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5565 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.2	6.5
10°-20°	215.5	17.1
20°-30°	279.6	22.2
30°-40°	268.7	21.3
40°-50°	199.4	15.8
50°-60°	122.1	9.7
60°-70°	59.3	4.7
70°-80°	22.6	1.8
80°-90°	10.2	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°	577.3	45.8
0°-40°	846.1	67.2
0°-60°	1167.6	92.7
0°-90°	1259.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1259.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	896	896	896	896	896	
5°	863	875	873	881	890	80
15°	714	734	761	807	839	199
25°	521	547	595	671	732	238
35°	317	345	414	512	593	196
45°	118	148	234	357	457	98
55°	58	60	92	209	302	52
65°	27	30	49	78	129	28
75°	14	22	23	20	20	15
85°	7	11	11	10	8	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	895.8	895.8	895.8	895.8	895.8
2.5°	884.4	894.7	887.9	890.1	891.3
5°	862.8	875.3	873.0	881.0	890.1
7.5°	833.2	848.0	852.5	868.5	883.3
10°	796.7	814.9	825.2	851.4	870.8
12.5°	756.8	776.2	795.5	830.9	857.1
15°	713.5	734.0	761.4	806.9	838.9
17.5°	667.9	690.7	723.7	778.4	816.1
20°	620.0	644.0	683.8	744.3	789.8
22.5°	571.0	596.1	640.5	707.8	761.4
25°	520.9	547.1	594.9	671.3	731.7
27.5°	469.6	496.9	551.6	632.6	698.7
30°	419.4	445.6	504.9	592.7	662.2
32.5°	368.1	395.5	459.3	551.6	626.9
35°	316.9	345.3	413.7	511.7	592.7
37.5°	264.4	295.2	367.0	473.0	558.5
40°	213.1	242.8	321.4	433.1	523.1
42.5°	163.0	194.9	278.1	393.2	490.1
45°	118.5	148.2	233.6	356.7	457.0
47.5°	88.9	107.1	192.6	322.5	420.6
50°	77.5	80.9	153.9	284.9	381.8
52.5°	67.2	69.5	119.7	243.9	343.1
55°	58.1	60.4	92.3	208.6	302.0
57.5°	49.0	51.3	74.1	174.4	255.3
60°	41.0	43.3	63.8	139.0	212.0
62.5°	34.2	35.3	57.0	106.0	169.8
65°	27.4	29.6	49.0	77.5	128.8
67.5°	22.8	25.1	39.9	53.6	90.0
70°	19.4	25.1	33.1	37.6	55.8
72.5°	16.0	22.8	27.4	26.2	26.2
75°	13.7	21.7	22.8	20.5	20.5
77.5°	11.4	19.4	18.2	17.1	16.0
80°	9.1	16.0	16.0	13.7	12.5
82.5°	8.0	12.5	12.5	12.5	10.3
85°	6.8	11.4	11.4	10.3	8.0
87.5°	4.6	9.1	10.3	9.1	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)