

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: P1060220

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060220
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-S1020D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

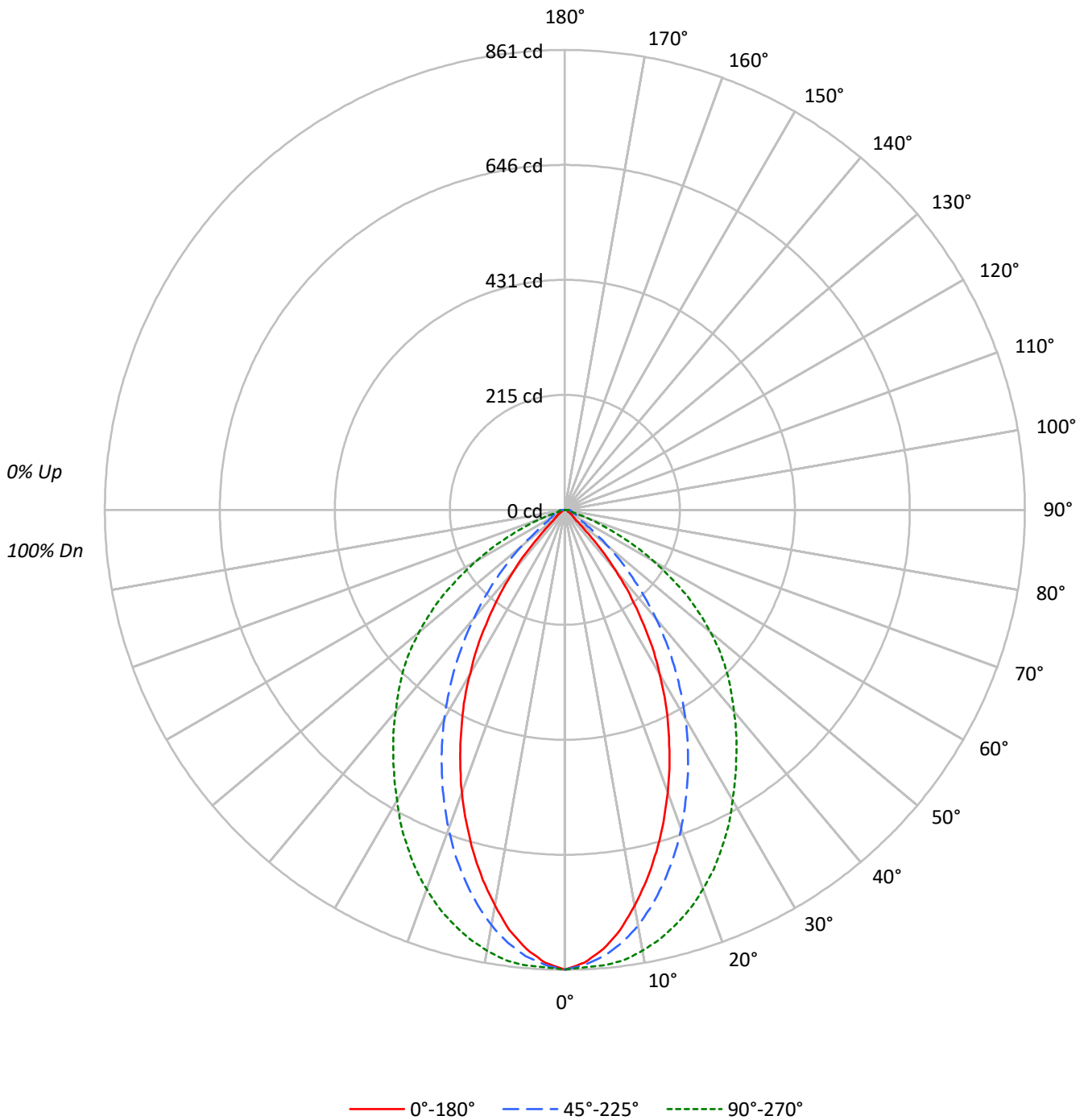
Lumens per Lamp: N/A
Luminaire Lumens: 1080.2 lumens
Efficiency: N/A
Efficacy: 30.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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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CATALOG NUMBER: S124RDR-S1020D830-X4F0-XX-UDD-BVL-S

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	103	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°	7412	7412	7412
5°	7135	7252	7400
10°	6579	6908	7327
15°	5904	6412	7165
20°	5161	5829	6926
25°	4365	5177	6618
30°	3525	4488	6245
35°	2625	3751	5884
40°	1666	2973	5536
45°	666	2180	5219
50°	291	1389	4765
55°	222	719	4159
60°	157	491	3298
65°	116	487	2254
70°	116	431	1032
75°	153	456	416
80°	228	511	451
85°	454	899	672

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5219 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.8	7.3
10°-20°	203.2	18.8
20°-30°	256.7	23.8
30°-40°	235.7	21.8
40°-50°	160.7	14.9
50°-60°	87.2	8.1
60°-70°	37.0	3.4
70°-80°	12.8	1.2
80°-90°	8.1	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°	538.7	49.9
0°-40°	774.4	71.7
0°-60°	1022.3	94.6
0°-90°	1080.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1080.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	861	861	861	861	861	
5°	825	838	839	846	856	77
15°	662	684	719	771	804	185
25°	459	489	545	629	696	210
35°	250	283	357	468	560	155
45°	55	88	179	317	429	50
55°	15	16	48	174	277	13
65°	6	7	24	55	111	6
75°	5	12	14	12	12	5
85°	5	9	9	9	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	860.7	860.7	860.7	860.7	860.7
2.5°	848.2	858.4	852.7	855.0	857.3
5°	825.4	837.9	839.0	845.9	856.1
7.5°	793.4	808.3	817.4	834.5	850.4
10°	752.4	770.6	790.0	817.4	837.9
12.5°	709.1	728.5	757.0	795.7	823.1
15°	662.3	684.0	719.3	770.6	803.7
17.5°	613.3	637.3	679.4	739.9	782.0
20°	563.2	589.4	636.1	704.5	755.8
22.5°	511.9	539.2	590.5	668.0	728.5
25°	459.4	489.1	544.9	629.3	696.5
27.5°	409.3	436.6	498.2	590.5	664.6
30°	354.5	385.3	451.4	550.6	628.1
32.5°	304.4	334.0	403.6	509.6	593.9
35°	249.7	282.7	356.8	468.5	559.7
37.5°	198.4	230.3	311.2	429.8	526.7
40°	148.2	181.3	264.5	391.0	492.5
42.5°	99.2	134.5	220.0	351.1	460.6
45°	54.7	87.8	179.0	316.9	428.6
47.5°	28.5	47.9	140.2	282.7	394.4
50°	21.7	26.2	103.7	245.1	355.7
52.5°	18.2	19.4	70.7	207.5	316.9
55°	14.8	16.0	47.9	174.4	277.0
57.5°	11.4	12.5	34.2	142.5	232.6
60°	9.1	10.3	28.5	109.4	191.5
62.5°	6.8	8.0	27.4	80.9	150.5
65°	5.7	6.8	23.9	54.7	110.6
67.5°	4.6	6.8	20.5	35.3	74.1
70°	4.6	9.1	17.1	22.8	41.0
72.5°	4.6	10.3	14.8	14.8	14.8
75°	4.6	12.5	13.7	12.5	12.5
77.5°	4.6	11.4	11.4	11.4	11.4
80°	4.6	10.3	10.3	10.3	9.1
82.5°	4.6	9.1	10.3	10.3	8.0
85°	4.6	9.1	9.1	9.1	6.8
87.5°	3.4	9.1	9.1	9.1	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)