

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 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: S124RDRP-S1020D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S124RDRP-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

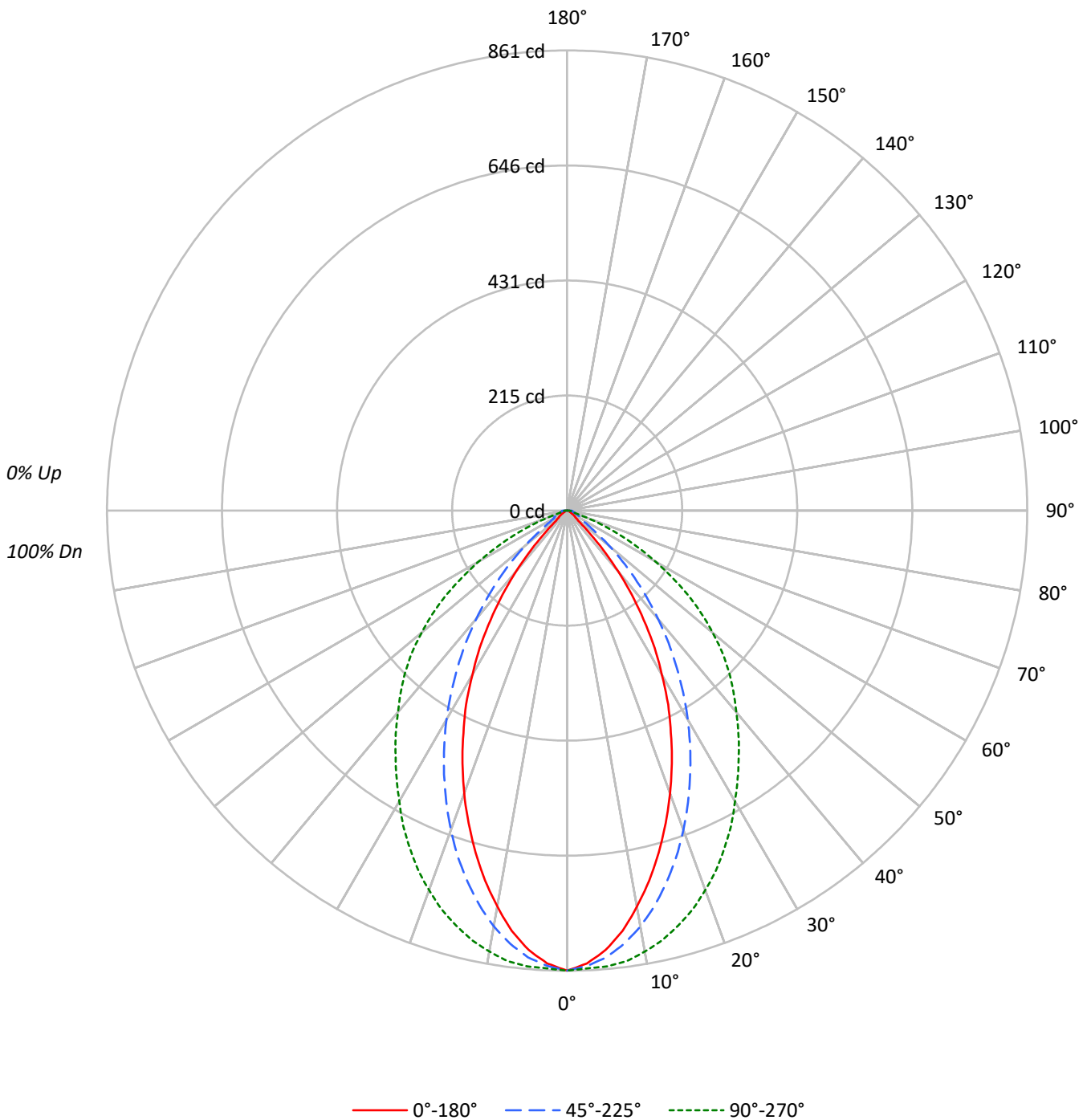
Lumens per Lamp: N/A
Luminaire Lumens: 1080.2 lumens
Efficiency: N/A
Efficacy: 30.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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	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



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	0.00	0.00	0.00	0.00	0.00	15.40	16.68	15.77	16.99	17.31
	3H	0.00	0.04	0.00	0.37	0.73	15.76	16.88	16.14	17.21	17.58
	4H	0.30	1.35	0.70	1.70	2.09	15.72	16.77	16.13	17.12	17.51
	6H	1.68	2.64	2.10	3.01	3.41	15.70	16.66	16.11	17.03	17.43
	8H	2.37	3.28	2.80	3.67	4.07	15.69	16.60	16.12	16.99	17.39
	12H	3.17	4.04	3.61	4.43	4.86	15.69	16.56	16.12	16.94	17.37
4H	2H	1.09	2.14	1.49	2.49	2.87	15.20	16.25	15.61	16.60	16.99
	3H	2.51	3.37	2.93	3.77	4.18	15.60	16.45	16.01	16.86	17.26
	4H	3.96	4.73	4.40	5.15	5.59	15.58	16.34	16.01	16.76	17.21
	6H	5.22	5.88	5.68	6.33	6.79	15.60	16.26	16.06	16.70	17.17
	8H	5.79	6.41	6.26	6.86	7.33	15.61	16.22	16.08	16.67	17.14
	12H	6.47	7.01	6.96	7.50	7.97	15.64	16.19	16.13	16.67	17.14
8H	4H	5.04	5.66	5.51	6.10	6.58	15.48	16.09	15.95	16.54	17.01
	6H	6.66	7.17	7.17	7.66	8.15	15.53	16.03	16.03	16.53	17.01
	8H	7.50	7.95	8.02	8.47	8.96	15.59	16.04	16.11	16.56	17.05
	12H	8.46	8.86	8.98	9.36	9.93	15.70	16.10	16.22	16.60	17.17
12H	4H	5.23	5.77	5.72	6.26	6.73	15.44	15.98	15.93	16.47	16.94
	6H	7.01	7.46	7.53	7.98	8.47	15.50	15.95	16.02	16.47	16.96
	8H	8.03	8.43	8.55	8.93	9.50	15.60	16.00	16.12	16.50	17.07