

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: P1060223

Luminaire Tested: S124RDRP-S1020D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S124RDRP-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

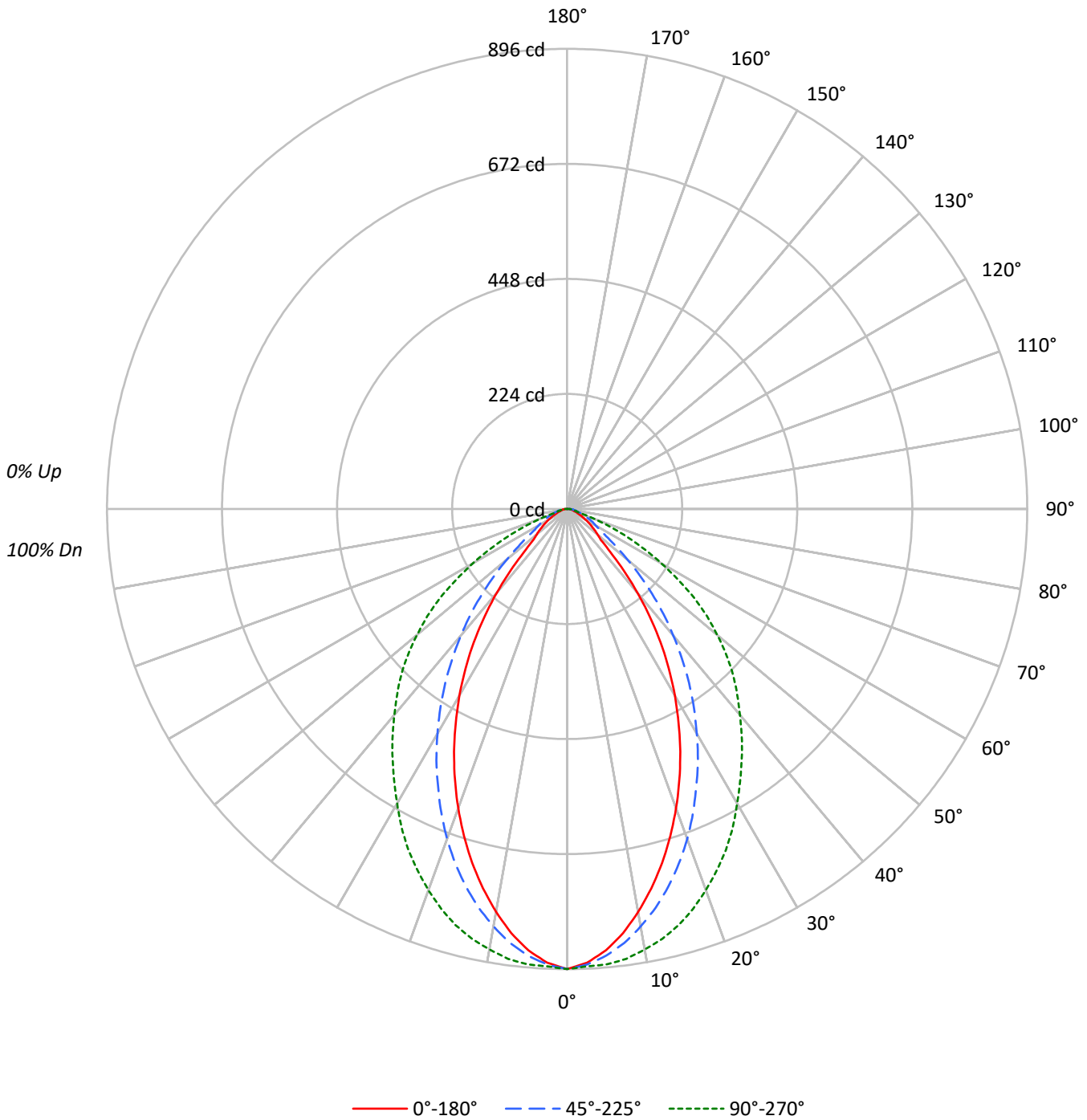
Lumens per Lamp: N/A
Luminaire Lumens: 1259.7 lumens
Efficiency: N/A
Efficacy: 36.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	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



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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	6.91	8.25	7.28	8.56	8.88	16.01	17.35	16.38	17.66	17.98
	3H	7.96	9.15	8.34	9.48	9.84	16.51	17.70	16.89	18.03	18.39
	4H	8.48	9.58	8.88	9.93	10.32	16.53	17.63	16.93	17.98	18.37
	6H	8.93	9.94	9.34	10.31	10.71	16.53	17.54	16.94	17.91	18.31
	8H	9.12	10.08	9.55	10.47	10.88	16.52	17.49	16.95	17.88	18.28
	12H	9.33	10.25	9.76	10.63	11.06	16.52	17.44	16.95	17.83	18.26
4H	2H	8.01	9.11	8.41	9.46	9.85	15.90	17.01	16.30	17.36	17.74
	3H	9.28	10.18	9.69	10.59	10.99	16.48	17.38	16.89	17.79	18.19
	4H	9.99	10.80	10.42	11.21	11.66	16.52	17.33	16.96	17.75	18.20
	6H	10.62	11.32	11.08	11.76	12.23	16.58	17.28	17.04	17.72	18.19
	8H	10.86	11.52	11.33	11.96	12.43	16.59	17.25	17.06	17.69	18.17
	12H	11.14	11.71	11.62	12.20	12.67	16.63	17.21	17.11	17.69	18.16
8H	4H	10.41	11.07	10.88	11.51	11.98	16.47	17.13	16.94	17.57	18.04
	6H	11.29	11.83	11.79	12.32	12.80	16.57	17.10	17.07	17.60	18.08
	8H	11.70	12.18	12.22	12.69	13.18	16.63	17.11	17.15	17.62	18.12
	12H	12.17	12.60	12.69	13.09	13.66	16.73	17.15	17.24	17.65	18.22
12H	4H	10.46	11.03	10.94	11.52	11.99	16.45	17.02	16.93	17.51	17.98
	6H	11.40	11.88	11.92	12.40	12.89	16.55	17.03	17.07	17.54	18.03
	8H	11.92	12.34	12.43	12.84	13.41	16.65	17.08	17.17	17.57	18.14