

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



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: P1060925

Luminaire Tested: S124RDR-H575D935-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060925
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-H575D935-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

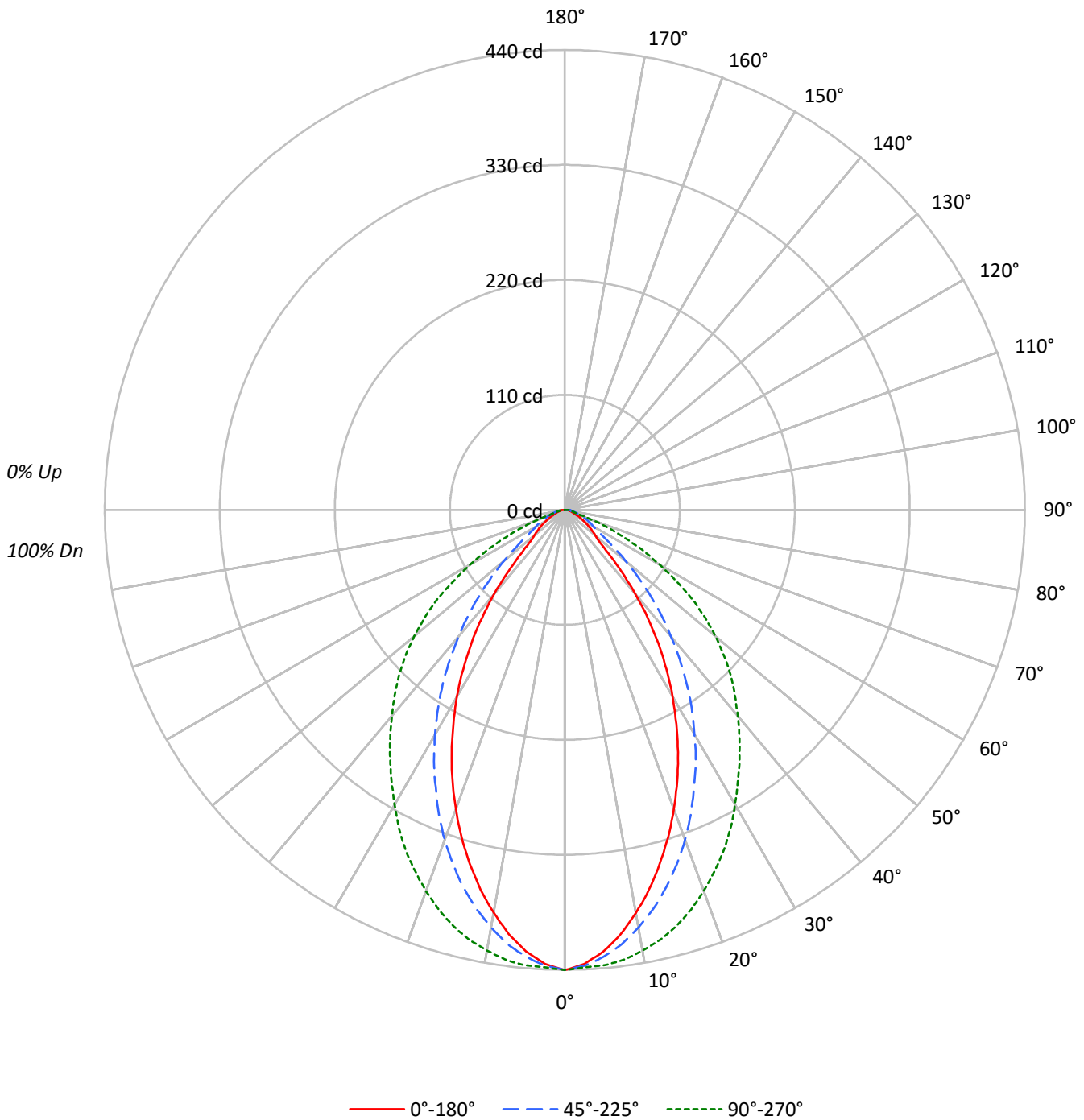
Lumens per Lamp: N/A
Luminaire Lumens: 619.1 lumens
Efficiency: N/A
Efficacy: 35.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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°	3791	3791	3791
5°	3666	3709	3782
10°	3424	3547	3742
15°	3126	3336	3676
20°	2793	3080	3557
25°	2432	2778	3418
30°	2050	2468	3237
35°	1637	2138	3062
40°	1178	1776	2890
45°	710	1398	2735
50°	510	1013	2515
55°	429	682	2229
60°	348	541	1795
65°	273	491	1290
70°	239	408	692
75°	223	373	336
80°	223	387	307
85°	336	553	385

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2735 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.4	6.5
10°-20°	105.9	17.1
20°-30°	137.4	22.2
30°-40°	132.1	21.3
40°-50°	98.0	15.8
50°-60°	60.0	9.7
60°-70°	29.2	4.7
70°-80°	11.1	1.8
80°-90°	5.0	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°	283.8	45.8
0°-40°	415.9	67.2
0°-60°	573.9	92.7
0°-90°	619.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	619.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	440	440	440	440	440	
5°	424	430	429	433	438	39
15°	351	361	374	397	412	98
25°	256	269	292	330	360	117
35°	156	170	203	252	291	96
45°	58	73	115	175	225	48
55°	29	30	45	102	148	26
65°	13	15	24	38	63	14
75°	7	11	11	10	10	7
85°	3	6	6	5	4	3
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	440.3	440.3	440.3	440.3	440.3
2.5°	434.7	439.8	436.4	437.5	438.1
5°	424.1	430.2	429.1	433.0	437.5
7.5°	409.5	416.8	419.0	426.9	434.2
10°	391.6	400.5	405.6	418.5	428.0
12.5°	372.0	381.5	391.0	408.4	421.3
15°	350.7	360.8	374.2	396.6	412.3
17.5°	328.3	339.5	355.7	382.6	401.1
20°	304.8	316.5	336.1	365.8	388.2
22.5°	280.7	293.0	314.8	347.9	374.2
25°	256.0	268.9	292.4	330.0	359.7
27.5°	230.8	244.2	271.1	310.9	343.4
30°	206.2	219.0	248.2	291.3	325.5
32.5°	180.9	194.4	225.8	271.1	308.1
35°	155.7	169.7	203.4	251.5	291.3
37.5°	130.0	145.1	180.4	232.5	274.5
40°	104.8	119.3	158.0	212.9	257.1
42.5°	80.1	95.8	136.7	193.3	240.9
45°	58.3	72.8	114.8	175.3	224.6
47.5°	43.7	52.7	94.7	158.5	206.7
50°	38.1	39.8	75.6	140.1	187.7
52.5°	33.1	34.2	58.8	119.9	168.6
55°	28.6	29.7	45.4	102.5	148.5
57.5°	24.1	25.2	36.4	85.7	125.5
60°	20.2	21.3	31.4	68.3	104.2
62.5°	16.8	17.4	28.0	52.1	83.5
65°	13.4	14.6	24.1	38.1	63.3
67.5°	11.2	12.3	19.6	26.3	44.3
70°	9.5	12.3	16.2	18.5	27.5
72.5°	7.8	11.2	13.4	12.9	12.9
75°	6.7	10.6	11.2	10.1	10.1
77.5°	5.6	9.5	9.0	8.4	7.8
80°	4.5	7.8	7.8	6.7	6.2
82.5°	3.9	6.2	6.2	6.2	5.0
85°	3.4	5.6	5.6	5.0	3.9
87.5°	2.2	4.5	5.0	4.5	2.8
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	4.44	5.78	4.81	6.09	6.41	13.54	14.88	13.91	15.19	15.51
	3H	5.48	6.67	5.86	7.00	7.37	14.05	15.23	14.42	15.56	15.93
	4H	6.00	7.10	6.40	7.45	7.84	14.06	15.17	14.46	15.52	15.90
	6H	6.45	7.46	6.86	7.83	8.23	14.06	15.07	14.47	15.44	15.84
	8H	6.64	7.60	7.07	7.99	8.40	14.05	15.02	14.48	15.41	15.81
	12H	6.85	7.78	7.29	8.16	8.59	14.05	14.97	14.49	15.36	15.79
4H	2H	5.54	6.64	5.94	7.00	7.38	13.43	14.54	13.83	14.89	15.27
	3H	6.80	7.71	7.22	8.11	8.52	14.01	14.92	14.42	15.32	15.72
	4H	7.51	8.32	7.94	8.73	9.18	14.06	14.87	14.49	15.29	15.73
	6H	8.14	8.84	8.60	9.28	9.75	14.11	14.81	14.57	15.26	15.72
	8H	8.38	9.03	8.85	9.48	9.95	14.13	14.78	14.60	15.23	15.70
	12H	8.66	9.24	9.15	9.72	10.20	14.16	14.74	14.65	15.22	15.69
8H	4H	7.93	8.59	8.40	9.03	9.50	14.01	14.66	14.48	15.11	15.58
	6H	8.81	9.34	9.31	9.84	10.32	14.10	14.64	14.60	15.13	15.61
	8H	9.22	9.70	9.74	10.21	10.71	14.16	14.64	14.68	15.16	15.65
	12H	9.70	10.13	10.21	10.62	11.19	14.26	14.68	14.77	15.18	15.75
12H	4H	7.98	8.55	8.46	9.04	9.51	13.98	14.56	14.47	15.04	15.51
	6H	8.92	9.40	9.44	9.92	10.41	14.08	14.56	14.60	15.08	15.57
	8H	9.44	9.87	9.96	10.36	10.93	14.19	14.61	14.70	15.11	15.68