

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: P1060886

Luminaire Tested: S124RDR-H575D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060886
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-H575D840-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

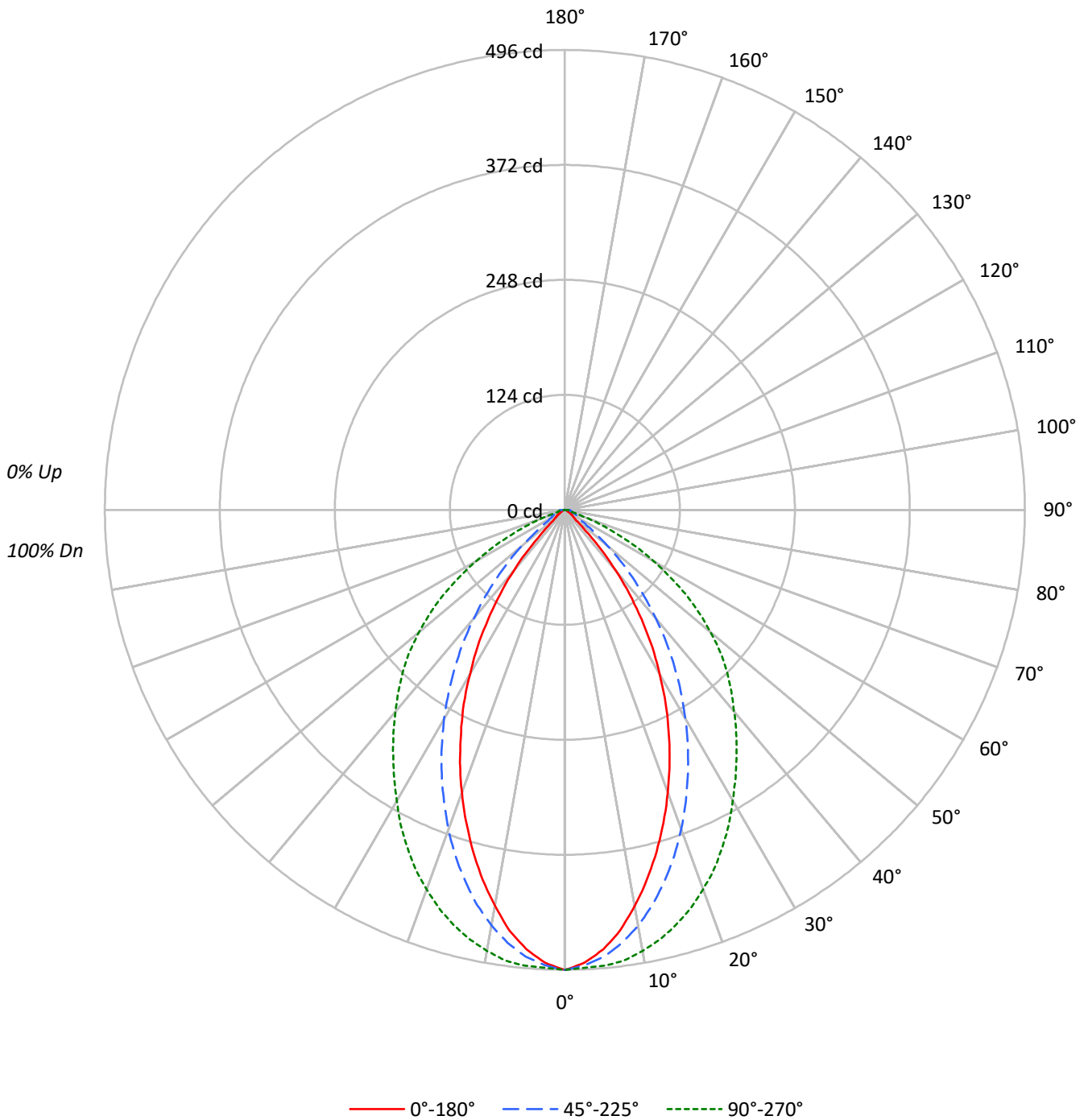
Lumens per Lamp: N/A
Luminaire Lumens: 622.7 lumens
Efficiency: N/A
Efficacy: 35.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	102	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°	4273	4273	4273
5°	4113	4181	4267
10°	3793	3982	4223
15°	3404	3697	4130
20°	2975	3360	3993
25°	2517	2984	3816
30°	2032	2588	3600
35°	1513	2162	3392
40°	960	1714	3191
45°	384	1257	3009
50°	167	801	2746
55°	128	414	2398
60°	91	282	1901
65°	67	281	1298
70°	65	249	597
75°	87	263	240
80°	129	293	263
85°	257	524	385

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3009 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	7.3
10°-20°	117.2	18.8
20°-30°	148.0	23.8
30°-40°	135.9	21.8
40°-50°	92.7	14.9
50°-60°	50.3	8.1
60°-70°	21.3	3.4
70°-80°	7.4	1.2
80°-90°	4.7	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°	310.5	49.9
0°-40°	446.5	71.7
0°-60°	589.4	94.6
0°-90°	622.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	622.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	476	483	484	488	494	44
15°	382	394	415	444	463	106
25°	265	282	314	363	402	121
35°	144	163	206	270	323	89
45°	32	51	103	183	247	29
55°	8	9	28	101	160	8
65°	3	4	14	32	64	3
75°	3	7	8	7	7	3
85°	3	5	5	5	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	496.2	496.2	496.2	496.2	496.2
2.5°	489.0	494.9	491.6	492.9	494.2
5°	475.8	483.0	483.7	487.6	493.6
7.5°	457.4	466.0	471.2	481.1	490.3
10°	433.8	444.3	455.4	471.2	483.0
12.5°	408.8	420.0	436.4	458.7	474.5
15°	381.8	394.3	414.7	444.3	463.3
17.5°	353.6	367.4	391.7	426.5	450.8
20°	324.7	339.8	366.7	406.2	435.7
22.5°	295.1	310.9	340.4	385.1	420.0
25°	264.9	281.9	314.1	362.8	401.6
27.5°	235.9	251.7	287.2	340.4	383.1
30°	204.4	222.1	260.3	317.4	362.1
32.5°	175.5	192.6	232.7	293.8	342.4
35°	143.9	163.0	205.7	270.1	322.7
37.5°	114.4	132.8	179.4	247.8	303.6
40°	85.4	104.5	152.5	225.4	283.9
42.5°	57.2	77.6	126.8	202.4	265.5
45°	31.5	50.6	103.2	182.7	247.1
47.5°	16.4	27.6	80.8	163.0	227.4
50°	12.5	15.1	59.8	141.3	205.0
52.5°	10.5	11.2	40.7	119.6	182.7
55°	8.5	9.2	27.6	100.6	159.7
57.5°	6.6	7.2	19.7	82.2	134.1
60°	5.3	5.9	16.4	63.1	110.4
62.5°	3.9	4.6	15.8	46.7	86.8
65°	3.3	3.9	13.8	31.5	63.7
67.5°	2.6	3.9	11.8	20.4	42.7
70°	2.6	5.3	9.9	13.1	23.7
72.5°	2.6	5.9	8.5	8.5	8.5
75°	2.6	7.2	7.9	7.2	7.2
77.5°	2.6	6.6	6.6	6.6	6.6
80°	2.6	5.9	5.9	5.9	5.3
82.5°	2.6	5.3	5.9	5.9	4.6
85°	2.6	5.3	5.3	5.3	3.9
87.5°	2.0	5.3	5.3	5.3	2.6
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	13.49	14.77	13.86	15.08	15.39
	3H	0.00	0.00	0.00	0.00	0.00	13.85	14.97	14.23	15.30	15.67
	4H	0.00	0.00	0.00	0.00	0.14	13.81	14.86	14.22	15.21	15.60
	6H	0.00	0.68	0.14	1.05	1.45	13.79	14.75	14.20	15.12	15.52
	8H	0.40	1.31	0.83	1.70	2.11	13.78	14.69	14.21	15.08	15.48
	12H	1.20	2.07	1.63	2.45	2.88	13.77	14.65	14.21	15.03	15.46
4H	2H	0.00	0.23	0.00	0.58	0.96	13.29	14.34	13.70	14.69	15.08
	3H	0.60	1.46	1.02	1.86	2.27	13.69	14.54	14.10	14.95	15.35
	4H	2.04	2.81	2.48	3.23	3.67	13.67	14.43	14.10	14.85	15.30
	6H	3.29	3.95	3.75	4.39	4.86	13.69	14.35	14.15	14.79	15.26
	8H	3.86	4.47	4.33	4.92	5.39	13.70	14.31	14.17	14.76	15.23
	12H	4.53	5.07	5.02	5.56	6.03	13.73	14.27	14.22	14.76	15.23
8H	4H	3.12	3.74	3.59	4.19	4.66	13.57	14.18	14.04	14.63	15.10
	6H	4.74	5.24	5.24	5.74	6.22	13.62	14.12	14.12	14.62	15.10
	8H	5.57	6.03	6.10	6.54	7.04	13.68	14.13	14.20	14.64	15.14
	12H	6.54	6.94	7.06	7.44	8.01	13.79	14.19	14.31	14.69	15.26
12H	4H	3.31	3.86	3.80	4.34	4.81	13.53	14.07	14.02	14.56	15.03
	6H	5.08	5.53	5.60	6.05	6.54	13.59	14.04	14.11	14.55	15.05
	8H	6.11	6.51	6.62	7.00	7.58	13.69	14.09	14.21	14.59	15.16