

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: P1060921

Luminaire Tested: S124RDR-H575D935-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060921
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D935-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

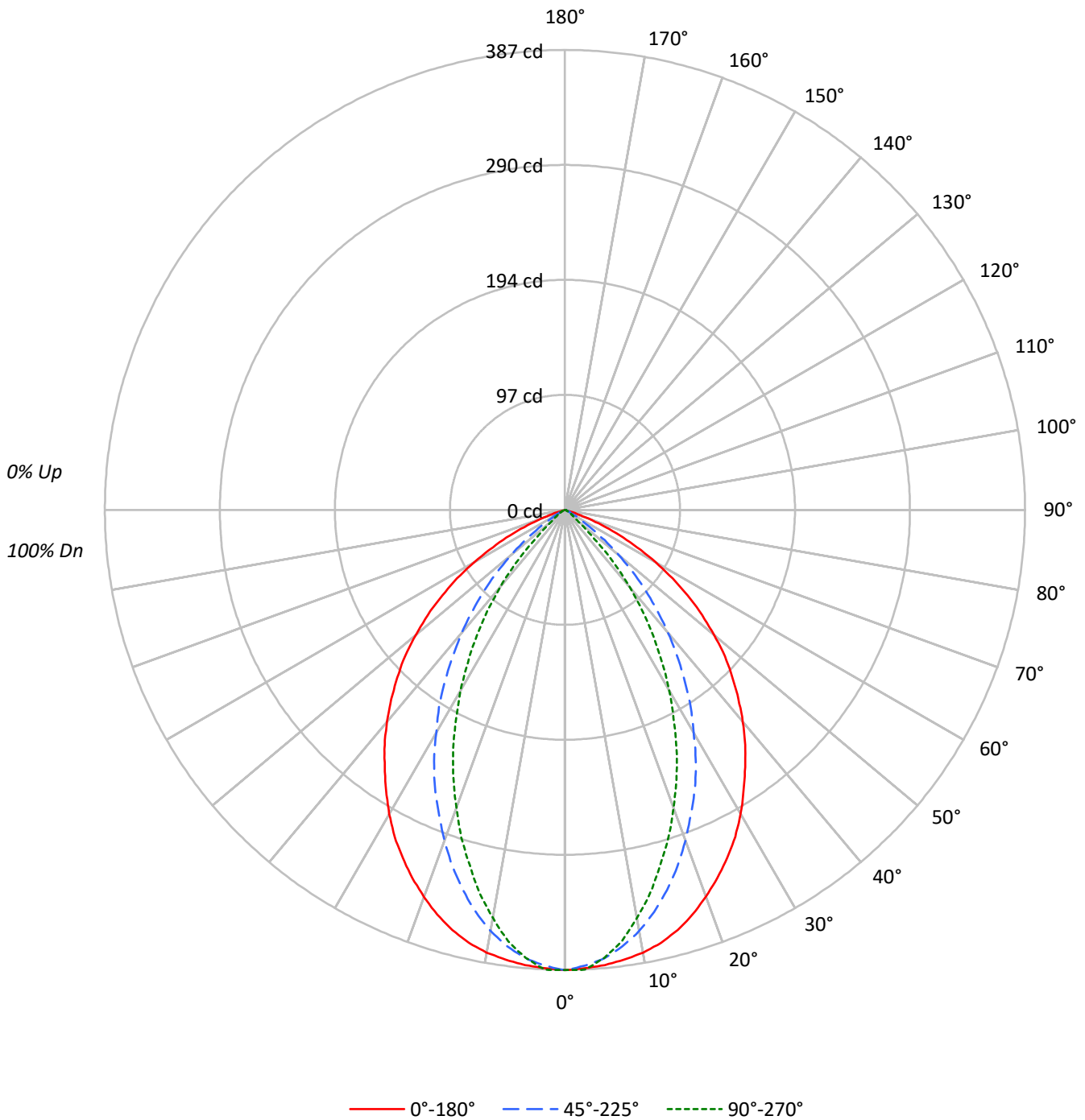
Lumens per Lamp: N/A
Luminaire Lumens: 505.8 lumens
Efficiency: N/A
Efficacy: 29.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91				91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82				82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66				66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55				55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42				42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3335	3335	3335
5°	3324	3275	3271
10°	3309	3147	3049
15°	3264	2954	2759
20°	3175	2713	2447
25°	3069	2457	2111
30°	2938	2154	1747
35°	2777	1847	1359
40°	2617	1516	950
45°	2427	1165	470
50°	2189	788	158
55°	1890	404	110
60°	1514	145	78
65°	1037	79	35
70°	466	43	28
75°	0	20	20
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2427 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.8	7.1
10°-20°	93.8	18.5
20°-30°	121.4	24.0
30°-40°	115.3	22.8
40°-50°	81.7	16.1
50°-60°	41.9	8.3
60°-70°	14.7	2.9
70°-80°	1.3	0.3
80°-90°	0.0	0.0
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°	250.9	49.6
0°-40°	366.2	72.4
0°-60°	489.8	96.8
0°-90°	505.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	505.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	387	387	387	387	387	
5°	384	385	379	379	378	37
15°	366	355	331	316	310	103
25°	323	298	259	231	222	149
35°	264	226	176	142	129	165
45°	199	153	96	55	39	153
55°	126	83	27	8	7	113
65°	51	25	4	2	2	51
75°	0	1	1	1	1	4
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	387.3	387.3	387.3	387.3	387.3
2.5°	386.2	387.3	384.0	386.8	387.3
5°	384.5	385.1	378.9	378.9	378.4
7.5°	381.7	380.6	370.5	366.6	366.1
10°	378.4	374.4	359.9	351.5	348.7
12.5°	373.3	366.1	346.5	334.1	330.8
15°	366.1	354.9	331.3	315.7	309.5
17.5°	357.1	342.5	314.6	295.5	289.4
20°	346.5	328.0	296.1	274.8	267.0
22.5°	335.3	314.0	277.1	253.0	245.2
25°	323.0	297.8	258.6	231.2	222.2
27.5°	310.1	280.4	238.4	209.9	198.1
30°	295.5	263.1	216.6	186.9	175.7
32.5°	279.9	244.0	197.0	165.1	151.7
35°	264.2	225.6	175.7	141.6	129.3
37.5°	249.1	208.2	154.5	118.7	106.9
40°	232.8	189.2	134.9	97.9	84.5
42.5°	216.0	170.7	114.7	76.7	62.1
45°	199.3	153.4	95.7	54.9	38.6
47.5°	182.5	134.9	77.2	34.7	20.7
50°	163.4	117.0	58.8	18.5	11.8
52.5°	145.5	100.2	42.0	10.6	9.0
55°	125.9	82.8	26.9	7.8	7.3
57.5°	107.5	66.0	15.1	6.2	5.6
60°	87.9	50.9	8.4	5.0	4.5
62.5°	68.3	36.9	5.6	3.4	2.8
65°	50.9	24.6	3.9	2.2	1.7
67.5°	33.6	14.0	2.8	1.1	1.1
70°	18.5	6.7	1.7	1.1	1.1
72.5°	6.7	2.2	1.1	0.6	0.6
75°	0.0	0.6	0.6	0.6	0.6
77.5°	0.0	0.0	0.0	0.0	0.6
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	12.71	13.97	13.08	14.28	14.59	0.00	0.00	0.00	0.00	0.00
	3H	12.99	14.09	13.37	14.42	14.79	0.00	0.00	0.00	0.00	0.00
	4H	12.91	13.94	13.32	14.29	14.67	0.00	0.00	0.00	0.00	0.00
	6H	12.83	13.76	13.24	14.14	14.53	0.00	0.00	0.00	0.00	0.00
	8H	12.78	13.67	13.21	14.06	14.46	0.00	0.00	0.00	0.00	0.00
	12H	12.73	13.58	13.17	13.96	14.39	0.00	0.00	0.00	0.00	0.00
4H	2H	12.48	13.51	12.89	13.86	14.25	0.00	0.00	0.00	0.00	0.00
	3H	12.77	13.60	13.18	14.00	14.41	0.00	0.00	0.00	0.00	0.00
	4H	12.68	13.41	13.11	13.83	14.28	0.00	0.00	0.00	0.00	0.00
	6H	12.59	13.22	13.05	13.67	14.14	0.00	0.00	0.00	0.00	0.00
	8H	12.53	13.11	13.00	13.56	14.04	0.00	0.00	0.00	0.00	0.00
	12H	12.48	12.99	12.96	13.48	13.95	0.00	0.00	0.00	0.00	0.00
8H	4H	12.53	13.12	13.00	13.56	14.04	0.00	0.00	0.00	0.00	0.00
	6H	12.42	12.89	12.92	13.39	13.88	0.00	0.00	0.00	0.00	0.00
	8H	12.35	12.78	12.88	13.30	13.79	0.00	0.00	0.00	0.00	0.00
	12H	12.30	12.68	12.82	13.18	13.75	0.00	0.00	0.00	0.00	0.00
12H	4H	12.48	12.99	12.96	13.48	13.95	0.00	0.00	0.00	0.00	0.00
	6H	12.35	12.78	12.88	13.30	13.79	0.00	0.00	0.00	0.00	0.00
	8H	12.30	12.68	12.82	13.18	13.75	0.00	0.00	0.00	0.00	0.00