

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: P1060903

Luminaire Tested: S124RDR-H575D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060903
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-H575D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

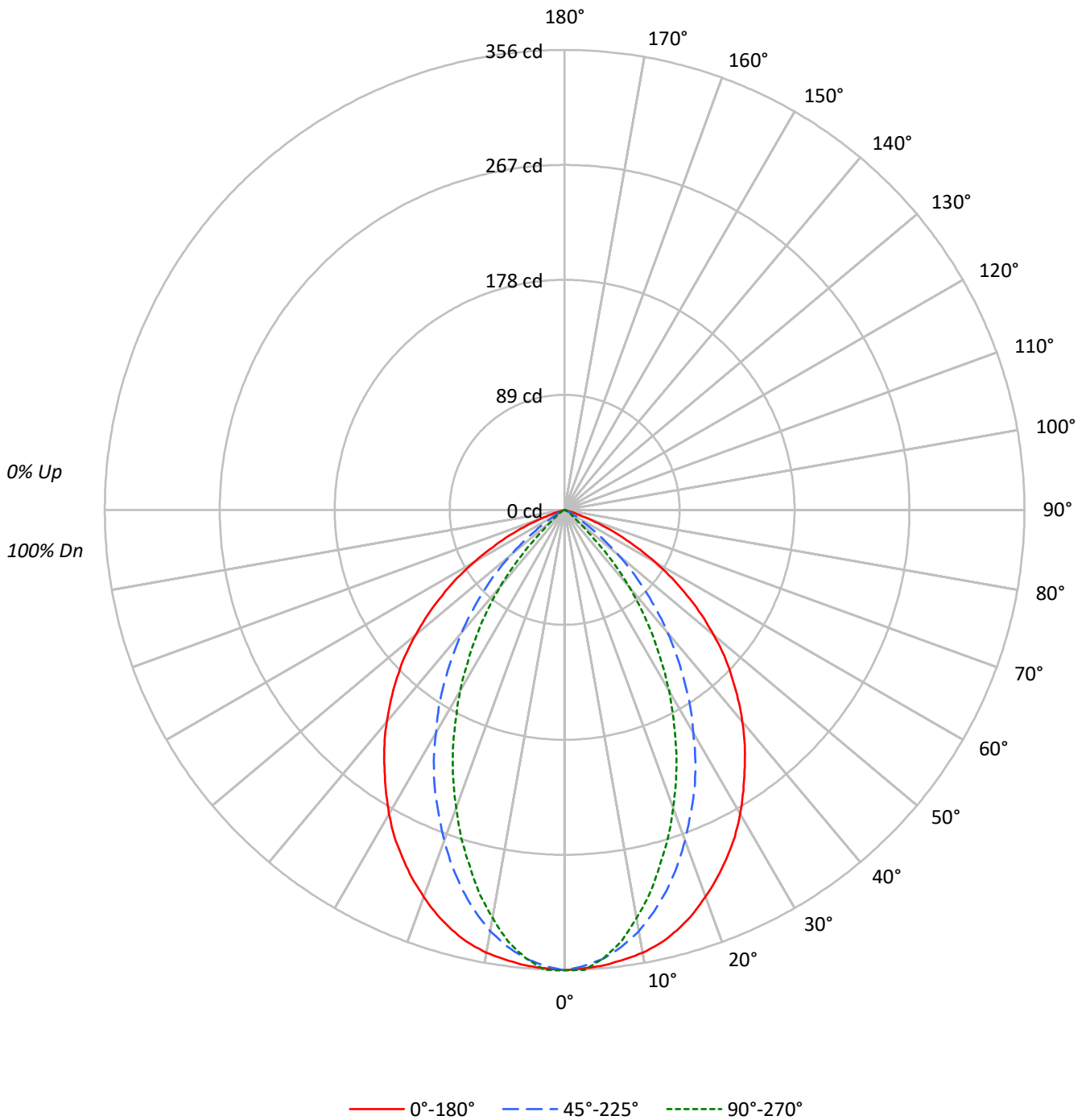
Lumens per Lamp: N/A
Luminaire Lumens: 465.3 lumens
Efficiency: N/A
Efficacy: 26.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3069	3069	3069
5°	3058	3013	3009
10°	3044	2895	2805
15°	3003	2718	2539
20°	2921	2496	2251
25°	2823	2260	1942
30°	2704	1982	1608
35°	2556	1700	1251
40°	2408	1395	875
45°	2232	1073	432
50°	2015	725	145
55°	1740	371	101
60°	1393	133	71
65°	956	73	31
70°	428	38	25
75°	0	17	17
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2232 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.9	7.1
10°-20°	86.3	18.5
20°-30°	111.7	24.0
30°-40°	106.1	22.8
40°-50°	75.2	16.2
50°-60°	38.6	8.3
60°-70°	13.5	2.9
70°-80°	1.2	0.2
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°	230.9	49.6
0°-40°	337.0	72.4
0°-60°	450.7	96.9
0°-90°	465.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	465.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	356	356	356	356	356	
5°	354	354	349	349	348	34
15°	337	326	305	290	285	95
25°	297	274	238	213	204	137
35°	243	208	162	130	119	152
45°	183	141	88	50	36	141
55°	116	76	25	7	7	104
65°	47	23	4	2	2	47
75°	0	0	0	0	0	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°	356.4	356.4	356.4	356.4	356.4
2.5°	355.3	356.4	353.3	355.8	356.4
5°	353.8	354.3	348.6	348.6	348.1
7.5°	351.2	350.2	340.9	337.3	336.8
10°	348.1	344.5	331.1	323.4	320.8
12.5°	343.5	336.8	318.8	307.4	304.4
15°	336.8	326.5	304.9	290.4	284.8
17.5°	328.6	315.2	289.4	271.9	266.2
20°	318.8	301.8	272.4	252.9	245.6
22.5°	308.5	288.9	254.9	232.8	225.6
25°	297.1	274.0	237.9	212.7	204.4
27.5°	285.3	258.0	219.4	193.1	182.3
30°	271.9	242.0	199.3	172.0	161.7
32.5°	257.5	224.5	181.3	151.9	139.6
35°	243.1	207.5	161.7	130.3	119.0
37.5°	229.2	191.6	142.1	109.2	98.4
40°	214.2	174.1	124.1	90.1	77.8
42.5°	198.8	157.1	105.6	70.6	57.2
45°	183.3	141.1	88.1	50.5	35.5
47.5°	167.9	124.1	71.1	31.9	19.1
50°	150.4	107.6	54.1	17.0	10.8
52.5°	133.9	92.2	38.6	9.8	8.2
55°	115.9	76.2	24.7	7.2	6.7
57.5°	98.9	60.8	13.9	5.7	5.1
60°	80.9	46.9	7.7	4.6	4.1
62.5°	62.8	34.0	5.1	3.1	2.6
65°	46.9	22.7	3.6	2.1	1.5
67.5°	30.9	12.9	2.6	1.0	1.0
70°	17.0	6.2	1.5	1.0	1.0
72.5°	6.2	2.1	1.0	0.5	0.5
75°	0.0	0.5	0.5	0.5	0.5
77.5°	0.0	0.0	0.0	0.0	0.5
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	12.43	13.68	12.79	14.00	14.31	0.00	0.00	0.00	0.00	0.00
	3H	12.71	13.81	13.09	14.14	14.51	0.00	0.00	0.00	0.00	0.00
	4H	12.63	13.65	13.03	14.01	14.39	0.00	0.00	0.00	0.00	0.00
	6H	12.54	13.48	12.96	13.85	14.25	0.00	0.00	0.00	0.00	0.00
	8H	12.50	13.38	12.93	13.77	14.18	0.00	0.00	0.00	0.00	0.00
	12H	12.45	13.30	12.88	13.68	14.11	0.00	0.00	0.00	0.00	0.00
4H	2H	12.20	13.23	12.60	13.58	13.96	0.00	0.00	0.00	0.00	0.00
	3H	12.48	13.31	12.90	13.72	14.12	0.00	0.00	0.00	0.00	0.00
	4H	12.39	13.13	12.83	13.55	13.99	0.00	0.00	0.00	0.00	0.00
	6H	12.30	12.93	12.77	13.38	13.85	0.00	0.00	0.00	0.00	0.00
	8H	12.24	12.83	12.71	13.28	13.75	0.00	0.00	0.00	0.00	0.00
	12H	12.19	12.71	12.68	13.19	13.67	0.00	0.00	0.00	0.00	0.00
8H	4H	12.24	12.83	12.71	13.28	13.75	0.00	0.00	0.00	0.00	0.00
	6H	12.13	12.61	12.64	13.11	13.59	0.00	0.00	0.00	0.00	0.00
	8H	12.07	12.50	12.59	13.01	13.51	0.00	0.00	0.00	0.00	0.00
	12H	12.02	12.40	12.53	12.89	13.47	0.00	0.00	0.00	0.00	0.00
12H	4H	12.19	12.71	12.68	13.19	13.67	0.00	0.00	0.00	0.00	0.00
	6H	12.07	12.50	12.59	13.01	13.51	0.00	0.00	0.00	0.00	0.00
	8H	12.02	12.40	12.53	12.89	13.47	0.00	0.00	0.00	0.00	0.00