

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: P1060771

Luminaire Tested: S124RDR-H1195D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060771
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D940-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

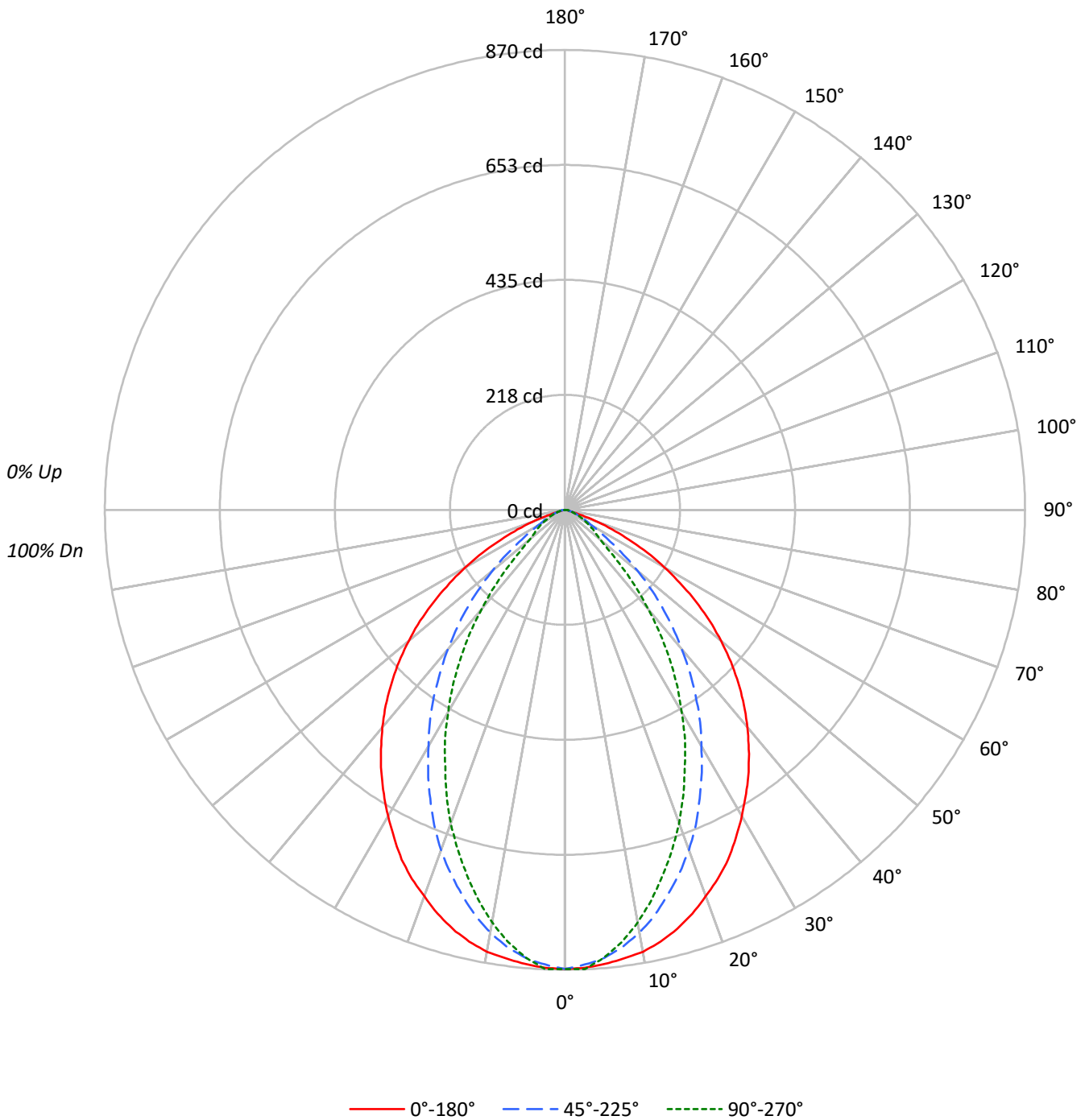
Lumens per Lamp: N/A
Luminaire Lumens: 1280.3 lumens
Efficiency: N/A
Efficacy: 35.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90			90	
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80			80	
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71			71	
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63			63	
5	84	74	66	61	82	73	66	60	71	65	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	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43			43	
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7478	7478	7478
5°	7453	7358	7347
10°	7422	7101	6930
15°	7316	6716	6379
20°	7129	6276	5783
25°	6938	5729	5090
30°	6652	5132	4390
35°	6364	4538	3626
40°	6035	3864	2750
45°	5644	3158	1847
50°	5162	2393	1147
55°	4535	1579	973
60°	3749	970	801
65°	2716	748	648
70°	1478	554	493
75°	326	406	449
80°	243	302	362
85°	237	237	366

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5644 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.4	6.3
10°-20°	213.7	16.7
20°-30°	283.1	22.1
30°-40°	280.9	21.9
40°-50°	216.2	16.9
50°-60°	128.9	10.1
60°-70°	58.6	4.6
70°-80°	15.2	1.2
80°-90°	3.4	0.3
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°	577.2	45.1
0°-40°	858.1	67.0
0°-60°	1203.2	94.0
0°-90°	1280.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1280.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	868	868	868	868	868	
5°	862	864	851	851	850	82
15°	821	800	753	728	716	231
25°	730	678	603	553	536	335
35°	605	530	432	366	345	378
45°	464	373	259	181	152	357
55°	302	215	105	66	65	269
65°	133	80	37	32	32	134
75°	10	12	12	14	14	21
85°	2	2	2	4	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	868.4	868.4	868.4	868.4	868.4
2.5°	867.1	868.4	861.0	867.1	869.6
5°	862.2	863.5	851.2	851.2	850.0
7.5°	856.1	853.7	834.1	826.8	824.3
10°	848.8	840.2	812.1	797.4	792.5
12.5°	836.6	823.1	785.2	764.4	755.8
15°	820.7	799.9	753.4	727.7	715.5
17.5°	801.1	775.4	720.4	687.3	673.9
20°	777.9	743.6	684.9	643.3	631.1
22.5°	755.8	713.0	645.8	598.1	584.6
25°	730.2	677.6	603.0	552.8	535.7
27.5°	699.6	643.3	560.2	508.8	491.7
30°	669.0	606.6	516.1	462.3	441.5
32.5°	637.2	568.7	475.8	414.6	395.0
35°	605.4	529.6	431.7	365.7	344.9
37.5°	571.2	490.4	387.7	319.2	296.0
40°	536.9	452.5	343.7	274.0	244.6
42.5°	501.4	413.4	300.9	227.5	198.1
45°	463.5	373.0	259.3	181.0	151.7
47.5°	425.6	335.1	217.7	135.8	108.9
50°	385.3	294.8	178.6	99.1	85.6
52.5°	344.9	255.6	139.4	77.1	73.4
55°	302.1	215.3	105.2	66.0	64.8
57.5°	258.1	178.6	75.8	57.5	55.0
60°	217.7	144.3	56.3	48.9	46.5
62.5°	176.1	108.9	46.5	40.4	37.9
65°	133.3	79.5	36.7	31.8	31.8
67.5°	96.6	53.8	29.4	25.7	24.5
70°	58.7	33.0	22.0	20.8	19.6
72.5°	29.4	19.6	17.1	15.9	15.9
75°	9.8	12.2	12.2	13.5	13.5
77.5°	7.3	8.6	8.6	9.8	9.8
80°	4.9	6.1	6.1	7.3	7.3
82.5°	3.7	3.7	4.9	4.9	6.1
85°	2.4	2.4	2.4	3.7	3.7
87.5°	1.2	1.2	1.2	2.4	2.4
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	16.11	17.44	16.47	17.76	18.07	7.66	8.99	8.02	9.31	9.62
	3H	16.62	17.80	17.00	18.13	18.49	8.48	9.66	8.86	9.99	10.35
	4H	16.58	17.68	16.99	18.03	18.42	8.76	9.86	9.16	10.21	10.59
	6H	16.52	17.53	16.93	17.90	18.29	8.93	9.94	9.35	10.31	10.70
	8H	16.48	17.44	16.91	17.83	18.23	9.00	9.95	9.43	10.34	10.75
	12H	16.44	17.36	16.88	17.74	18.17	9.04	9.95	9.47	10.34	10.77
4H	2H	15.95	17.05	16.35	17.40	17.78	8.10	9.20	8.50	9.55	9.93
	3H	16.51	17.40	16.92	17.80	18.21	9.07	9.96	9.48	10.36	10.77
	4H	16.47	17.27	16.91	17.69	18.13	9.43	10.23	9.87	10.65	11.09
	6H	16.42	17.11	16.88	17.55	18.02	9.68	10.37	10.14	10.81	11.28
	8H	16.38	17.01	16.84	17.46	17.93	9.77	10.41	10.24	10.86	11.33
	12H	16.34	16.90	16.82	17.38	17.86	9.85	10.41	10.33	10.89	11.37
8H	4H	16.36	17.00	16.83	17.45	17.92	9.52	10.16	9.99	10.61	11.08
	6H	16.30	16.82	16.81	17.32	17.80	9.83	10.35	10.33	10.85	11.33
	8H	16.26	16.72	16.78	17.24	17.73	9.96	10.43	10.48	10.94	11.44
	12H	16.22	16.64	16.74	17.13	17.70	10.10	10.51	10.61	11.01	11.58
12H	4H	16.32	16.89	16.81	17.37	17.84	9.49	10.06	9.98	10.54	11.02
	6H	16.25	16.72	16.77	17.23	17.72	9.81	10.28	10.33	10.79	11.29
	8H	16.22	16.63	16.74	17.13	17.70	9.98	10.39	10.49	10.89	11.46