

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: P1060723

Luminaire Tested: S124RDR-H1195D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060723
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-H1195D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

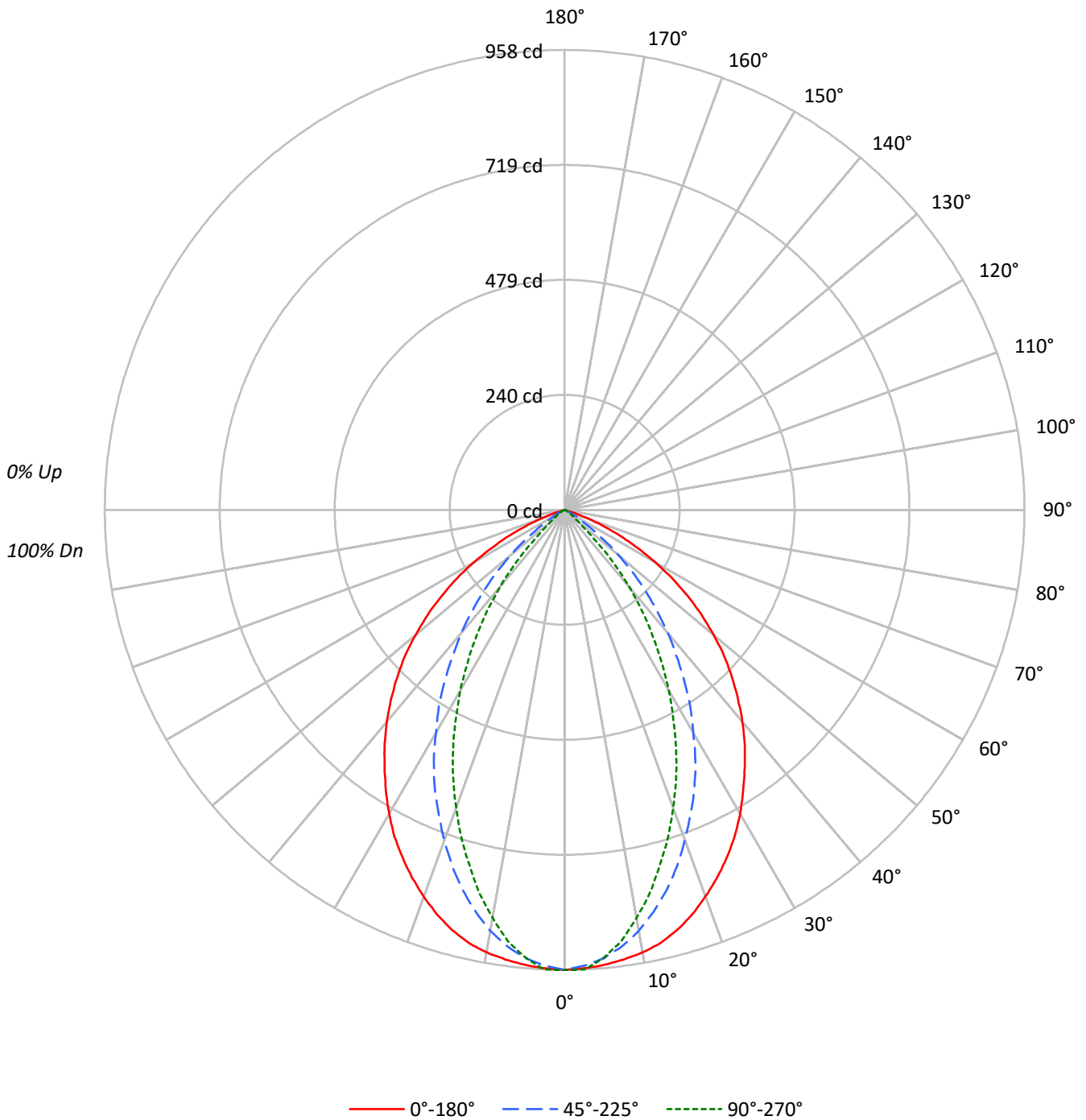
Lumens per Lamp: N/A
Luminaire Lumens: 1251.6 lumens
Efficiency: N/A
Efficacy: 34.3 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	8254	8254	8254
5°	8226	8106	8093
10°	8187	7787	7545
15°	8076	7310	6829
20°	7857	6714	6055
25°	7593	6080	5225
30°	7272	5330	4324
35°	6873	4572	3364
40°	6477	3752	2352
45°	6005	2885	1164
50°	5419	1948	390
55°	4678	998	270
60°	3746	358	191
65°	2567	198	86
70°	1151	106	70
75°	0	47	47
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6005 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	7.1
10°-20°	232.0	18.5
20°-30°	300.4	24.0
30°-40°	285.4	22.8
40°-50°	202.1	16.1
50°-60°	103.7	8.3
60°-70°	36.3	2.9
70°-80°	3.1	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°	620.9	49.6
0°-40°	906.3	72.4
0°-60°	1212.1	96.8
0°-90°	1251.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1251.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	958	958	958	958	958	
5°	952	953	938	938	936	90
15°	906	878	820	781	766	255
25°	799	737	640	572	550	368
35°	654	558	435	350	320	409
45°	493	380	237	136	96	380
55°	312	205	66	19	18	278
65°	126	61	10	6	4	125
75°	0	1	1	1	1	10
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°	958.5	958.5	958.5	958.5	958.5
2.5°	955.7	958.5	950.2	957.1	958.5
5°	951.6	953.0	937.7	937.7	936.3
7.5°	944.6	941.9	916.9	907.2	905.9
10°	936.3	926.6	890.6	869.8	862.9
12.5°	923.9	905.9	857.4	826.9	818.6
15°	905.9	878.2	820.0	781.2	766.0
17.5°	883.7	847.7	778.4	731.3	716.1
20°	857.4	811.7	732.7	680.1	660.7
22.5°	829.7	777.0	685.6	626.1	606.7
25°	799.2	736.9	639.9	572.1	549.9
27.5°	767.4	693.9	590.1	519.4	490.3
30°	731.3	651.0	536.0	462.6	434.9
32.5°	692.6	603.9	487.6	408.6	375.4
35°	653.8	558.2	434.9	350.4	320.0
37.5°	616.4	515.3	382.3	293.6	264.6
40°	576.2	468.2	333.8	242.4	209.2
42.5°	534.7	422.5	283.9	189.8	153.7
45°	493.1	379.5	236.9	135.7	95.6
47.5°	451.5	333.8	191.1	85.9	51.2
50°	404.5	289.5	145.4	45.7	29.1
52.5°	360.1	247.9	103.9	26.3	22.2
55°	311.6	205.0	66.5	19.4	18.0
57.5°	265.9	163.4	37.4	15.2	13.9
60°	217.5	126.0	20.8	12.5	11.1
62.5°	169.0	91.4	13.9	8.3	6.9
65°	126.0	60.9	9.7	5.5	4.2
67.5°	83.1	34.6	6.9	2.8	2.8
70°	45.7	16.6	4.2	2.8	2.8
72.5°	16.6	5.5	2.8	1.4	1.4
75°	0.0	1.4	1.4	1.4	1.4
77.5°	0.0	0.0	0.0	0.0	1.4
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	15.86	17.12	16.23	17.43	17.74	0.00	0.00	0.00	0.09	0.41
	3H	16.14	17.24	16.52	17.57	17.94	0.00	0.00	0.00	0.04	0.40
	4H	16.06	17.09	16.46	17.44	17.82	0.00	0.00	0.00	0.00	0.35
	6H	15.98	16.91	16.39	17.28	17.68	0.00	0.00	0.00	0.00	0.24
	8H	15.93	16.81	16.36	17.21	17.61	0.00	0.00	0.00	0.00	0.17
	12H	15.88	16.73	16.32	17.11	17.54	0.00	0.00	0.00	0.00	0.10
4H	2H	15.63	16.66	16.04	17.01	17.39	0.00	0.01	0.00	0.36	0.74
	3H	15.92	16.74	16.33	17.15	17.55	0.00	0.00	0.00	0.36	0.76
	4H	15.82	16.56	16.26	16.98	17.43	0.00	0.00	0.00	0.27	0.71
	6H	15.74	16.37	16.20	16.81	17.28	0.00	0.00	0.00	0.13	0.60
	8H	15.68	16.26	16.15	16.71	17.18	0.00	0.00	0.00	0.03	0.50
	12H	15.62	16.14	16.11	16.62	17.10	0.00	0.00	0.00	0.00	0.42
8H	4H	15.68	16.26	16.15	16.71	17.18	0.00	0.00	0.00	0.21	0.68
	6H	15.57	16.04	16.07	16.54	17.03	0.00	0.00	0.00	0.07	0.55
	8H	15.50	15.93	16.02	16.45	16.94	0.00	0.00	0.00	0.00	0.46
	12H	15.45	15.83	15.97	16.32	16.90	0.00	0.00	0.00	0.00	0.42
12H	4H	15.62	16.14	16.11	16.63	17.10	0.00	0.00	0.00	0.12	0.60
	6H	15.50	15.93	16.02	16.45	16.94	0.00	0.00	0.00	0.00	0.46
	8H	15.45	15.83	15.97	16.32	16.90	0.00	0.00	0.00	0.00	0.42