

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: P1060714

Luminaire Tested: S124RDR-H1195D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060714
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-H1195D835-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, 80 CRI LEDS
Ballast/Driver: -

Summary

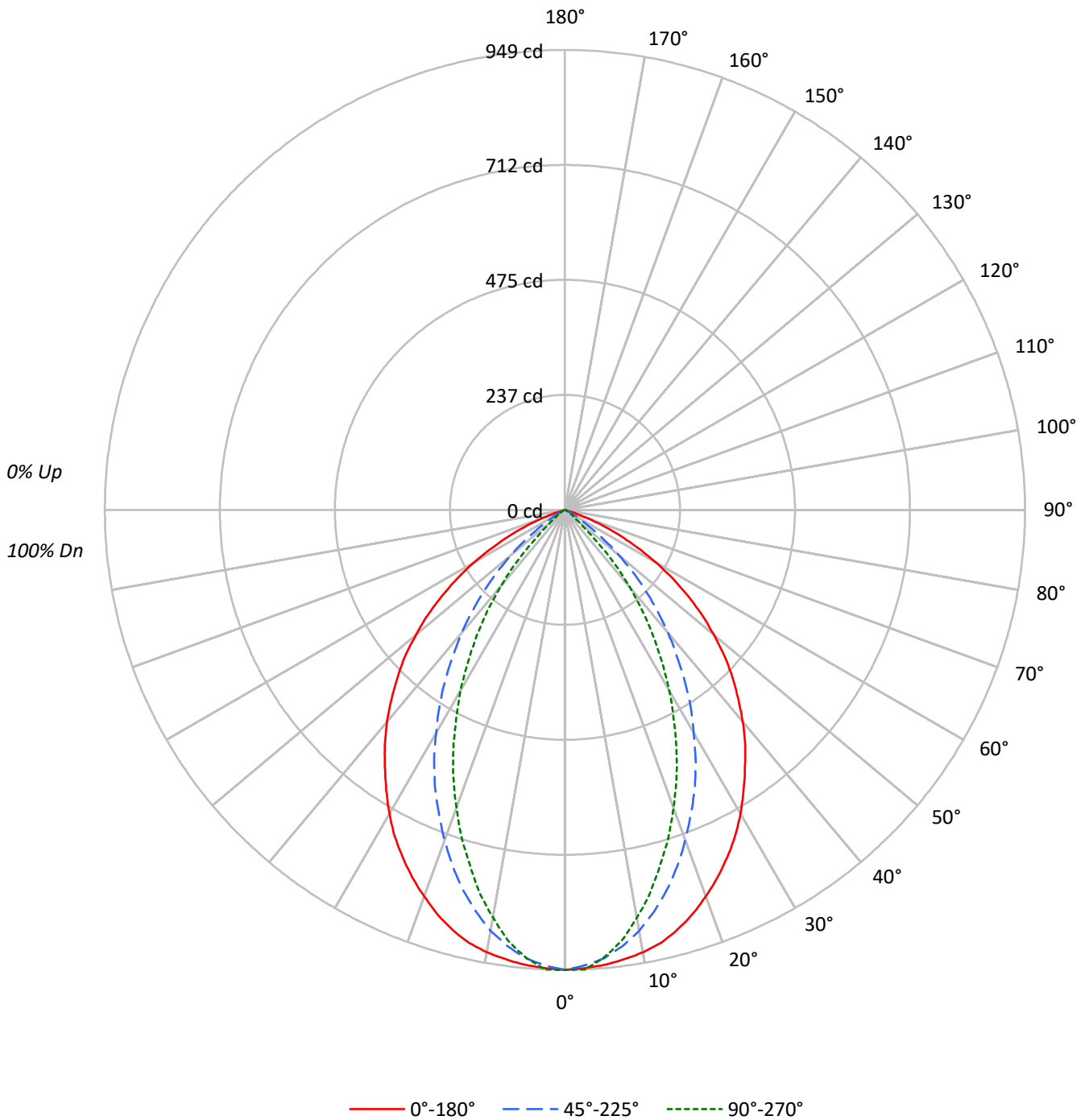
Lumens per Lamp: N/A
Luminaire Lumens: 1239.4 lumens
Efficiency: N/A
Efficacy: 34.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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°	8173	8173	8173
5°	8145	8027	8015
10°	8107	7711	7472
15°	7997	7239	6762
20°	7780	6649	5995
25°	7519	6021	5173
30°	7201	5278	4283
35°	6806	4528	3330
40°	6414	3716	2328
45°	5947	2856	1152
50°	5365	1929	386
55°	4633	988	267
60°	3708	355	189
65°	2543	196	84
70°	1141	103	68
75°	0	47	47
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5947 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.7	7.1
10°-20°	229.7	18.5
20°-30°	297.4	24.0
30°-40°	282.6	22.8
40°-50°	200.1	16.1
50°-60°	102.7	8.3
60°-70°	35.9	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°	614.9	49.6
0°-40°	897.5	72.4
0°-60°	1200.3	96.8
0°-90°	1239.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1239.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	949	949	949	949	949	
5°	942	944	929	929	927	89
15°	897	870	812	774	758	252
25°	791	730	634	566	544	364
35°	647	553	431	347	317	405
45°	488	376	234	134	95	376
55°	309	203	66	19	18	276
65°	125	60	10	6	4	124
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°	949.1	949.1	949.1	949.1	949.1
2.5°	946.4	949.1	940.9	947.8	949.1
5°	942.3	943.6	928.6	928.6	927.2
7.5°	935.4	932.7	908.0	898.4	897.0
10°	927.2	917.6	881.9	861.4	854.5
12.5°	914.8	897.0	849.0	818.8	810.6
15°	897.0	869.6	812.0	773.6	758.5
17.5°	875.1	839.4	770.8	724.2	709.1
20°	849.0	803.7	725.6	673.4	654.2
22.5°	821.6	769.5	678.9	620.0	600.8
25°	791.4	729.7	633.7	566.5	544.5
27.5°	759.9	687.2	584.3	514.3	485.5
30°	724.2	644.6	530.8	458.1	430.7
32.5°	685.8	598.0	482.8	404.6	371.7
35°	647.4	552.7	430.7	347.0	316.8
37.5°	610.4	510.2	378.6	290.8	262.0
40°	570.6	463.6	330.6	240.0	207.1
42.5°	529.4	418.3	281.2	187.9	152.2
45°	488.3	375.8	234.5	134.4	94.6
47.5°	447.1	330.6	189.3	85.0	50.7
50°	400.5	286.7	144.0	45.3	28.8
52.5°	356.6	245.5	102.9	26.1	21.9
55°	308.6	203.0	65.8	19.2	17.8
57.5°	263.3	161.8	37.0	15.1	13.7
60°	215.3	124.8	20.6	12.3	11.0
62.5°	167.3	90.5	13.7	8.2	6.9
65°	124.8	60.3	9.6	5.5	4.1
67.5°	82.3	34.3	6.9	2.7	2.7
70°	45.3	16.5	4.1	2.7	2.7
72.5°	16.5	5.5	2.7	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	15.83	17.08	16.19	17.39	17.71	0.00	0.00	0.00	0.07	0.38
	3H	16.10	17.21	16.48	17.54	17.91	0.00	0.00	0.00	0.00	0.37
	4H	16.03	17.05	16.43	17.40	17.79	0.00	0.00	0.00	0.00	0.31
	6H	15.94	16.88	16.36	17.25	17.65	0.00	0.00	0.00	0.00	0.20
	8H	15.90	16.78	16.33	17.17	17.58	0.00	0.00	0.00	0.00	0.14
	12H	15.85	16.69	16.28	17.08	17.51	0.00	0.00	0.00	0.00	0.07
4H	2H	15.60	16.62	16.00	16.98	17.36	0.00	0.00	0.00	0.33	0.72
	3H	15.88	16.71	16.30	17.12	17.52	0.00	0.00	0.00	0.32	0.72
	4H	15.79	16.53	16.23	16.95	17.39	0.00	0.00	0.00	0.23	0.68
	6H	15.70	16.33	16.17	16.78	17.25	0.00	0.00	0.00	0.09	0.56
	8H	15.64	16.23	16.11	16.68	17.15	0.00	0.00	0.00	0.00	0.46
	12H	15.59	16.11	16.08	16.59	17.07	0.00	0.00	0.00	0.00	0.38
8H	4H	15.64	16.23	16.11	16.68	17.15	0.00	0.00	0.00	0.17	0.64
	6H	15.53	16.01	16.04	16.51	16.99	0.00	0.00	0.00	0.03	0.51
	8H	15.47	15.89	15.99	16.41	16.91	0.00	0.00	0.00	0.00	0.43
	12H	15.42	15.79	15.93	16.29	16.86	0.00	0.00	0.00	0.00	0.38
12H	4H	15.59	16.11	16.08	16.59	17.07	0.00	0.00	0.00	0.09	0.56
	6H	15.47	15.89	15.99	16.41	16.91	0.00	0.00	0.00	0.00	0.43
	8H	15.42	15.79	15.93	16.29	16.86	0.00	0.00	0.00	0.00	0.38