

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: P1060768

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060768
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-H1195D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

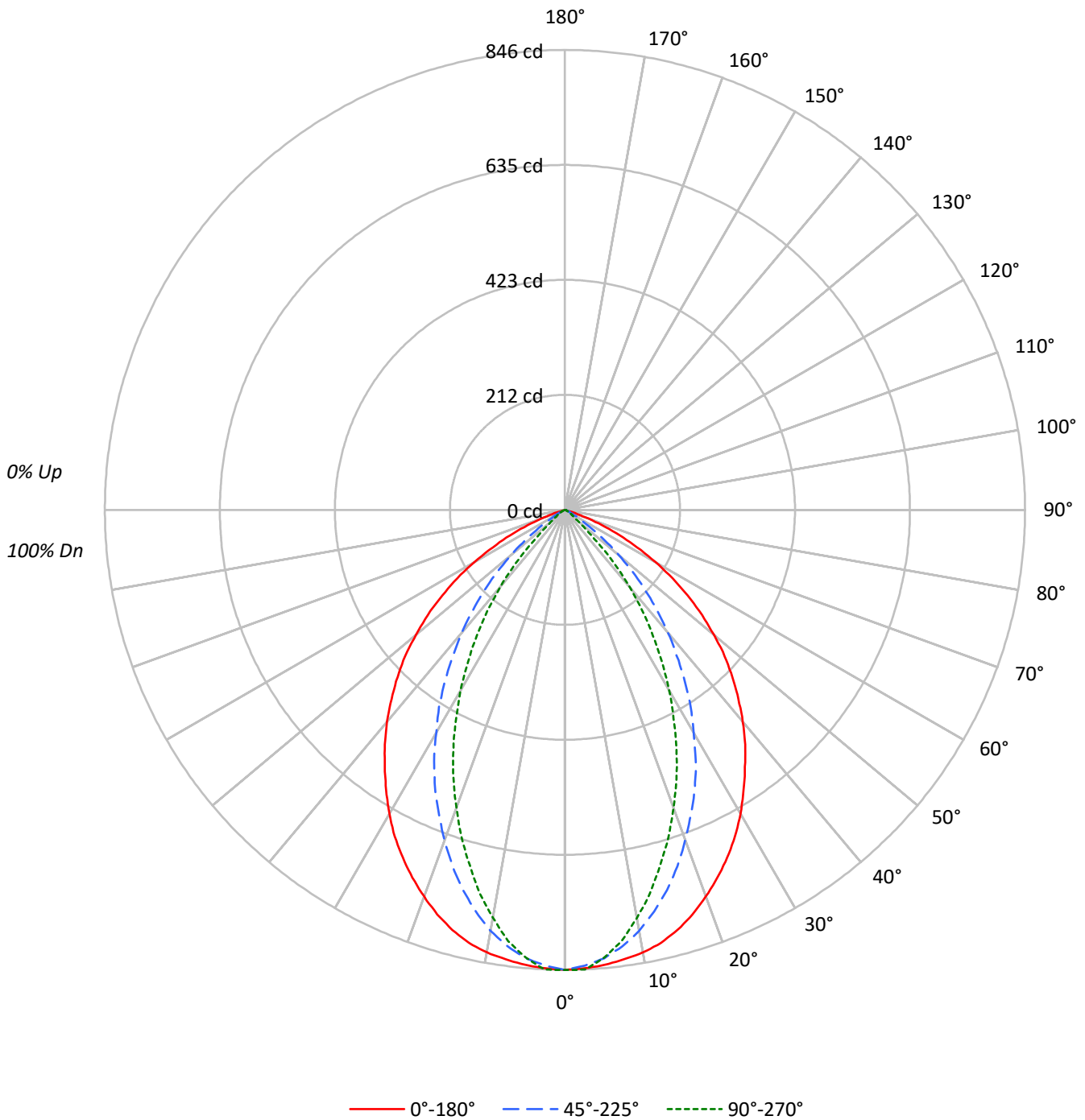
Lumens per Lamp: N/A
Luminaire Lumens: 1105.1 lumens
Efficiency: N/A
Efficacy: 30.3 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				
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°	7288	7288	7288
5°	7263	7157	7147
10°	7230	6876	6663
15°	7131	6454	6029
20°	6938	5929	5346
25°	6705	5368	4614
30°	6421	4706	3818
35°	6069	4037	2970
40°	5719	3314	2076
45°	5302	2546	1028
50°	4784	1720	344
55°	4132	881	239
60°	3307	315	169
65°	2268	175	75
70°	1017	93	60
75°	0	40	40
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5302 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.2	7.1
10°-20°	204.9	18.5
20°-30°	265.2	24.0
30°-40°	252.0	22.8
40°-50°	178.5	16.1
50°-60°	91.6	8.3
60°-70°	32.0	2.9
70°-80°	2.8	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°	548.3	49.6
0°-40°	800.3	72.4
0°-60°	1070.3	96.9
0°-90°	1105.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1105.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	846	846	846	846	846	
5°	840	842	828	828	827	80
15°	800	775	724	690	676	225
25°	706	651	565	505	486	325
35°	577	493	384	309	282	361
45°	435	335	209	120	84	335
55°	275	181	59	17	16	246
65°	111	54	9	5	4	111
75°	0	1	1	1	1	9
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°	846.4	846.4	846.4	846.4	846.4
2.5°	843.9	846.4	839.0	845.1	846.4
5°	840.2	841.5	828.0	828.0	826.8
7.5°	834.1	831.7	809.7	801.1	799.9
10°	826.8	818.2	786.4	768.1	762.0
12.5°	815.8	799.9	757.1	730.2	722.8
15°	799.9	775.4	724.0	689.8	676.3
17.5°	780.3	748.5	687.4	645.8	632.3
20°	757.1	716.7	647.0	600.5	583.4
22.5°	732.6	686.1	605.4	552.8	535.7
25°	705.7	650.7	565.0	505.1	485.6
27.5°	677.6	612.7	521.0	458.6	433.0
30°	645.8	574.8	473.3	408.5	384.0
32.5°	611.5	533.3	430.5	360.8	331.4
35°	577.3	492.9	384.0	309.4	282.5
37.5°	544.3	455.0	337.6	259.3	233.6
40°	508.8	413.4	294.8	214.0	184.7
42.5°	472.1	373.0	250.7	167.6	135.8
45°	435.4	335.1	209.1	119.9	84.4
47.5°	398.7	294.8	168.8	75.8	45.3
50°	357.1	255.6	128.4	40.4	25.7
52.5°	318.0	218.9	91.7	23.2	19.6
55°	275.2	181.0	58.7	17.1	15.9
57.5°	234.8	144.3	33.0	13.5	12.2
60°	192.0	111.3	18.3	11.0	9.8
62.5°	149.2	80.7	12.2	7.3	6.1
65°	111.3	53.8	8.6	4.9	3.7
67.5°	73.4	30.6	6.1	2.4	2.4
70°	40.4	14.7	3.7	2.4	2.4
72.5°	14.7	4.9	2.4	1.2	1.2
75°	0.0	1.2	1.2	1.2	1.2
77.5°	0.0	0.0	0.0	0.0	1.2
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	15.43	16.69	15.79	17.00	17.31	0.00	0.00	0.00	0.00	0.00
	3H	15.71	16.81	16.09	17.14	17.51	0.00	0.00	0.00	0.00	0.00
	4H	15.63	16.66	16.03	17.01	17.39	0.00	0.00	0.00	0.00	0.00
	6H	15.54	16.48	15.96	16.85	17.25	0.00	0.00	0.00	0.00	0.00
	8H	15.50	16.38	15.93	16.78	17.18	0.00	0.00	0.00	0.00	0.00
	12H	15.45	16.30	15.88	16.68	17.11	0.00	0.00	0.00	0.00	0.00
4H	2H	15.20	16.23	15.61	16.58	16.96	0.00	0.00	0.00	0.00	0.33
	3H	15.49	16.31	15.90	16.72	17.12	0.00	0.00	0.00	0.00	0.34
	4H	15.39	16.13	15.83	16.55	16.99	0.00	0.00	0.00	0.00	0.28
	6H	15.31	15.94	15.77	16.38	16.85	0.00	0.00	0.00	0.00	0.17
	8H	15.24	15.83	15.72	16.28	16.75	0.00	0.00	0.00	0.00	0.07
	12H	15.19	15.71	15.68	16.19	16.67	0.00	0.00	0.00	0.00	0.00
8H	4H	15.25	15.83	15.72	16.28	16.75	0.00	0.00	0.00	0.00	0.25
	6H	15.14	15.61	15.64	16.11	16.59	0.00	0.00	0.00	0.00	0.12
	8H	15.07	15.50	15.59	16.01	16.51	0.00	0.00	0.00	0.00	0.03
	12H	15.02	15.40	15.54	15.89	16.47	0.00	0.00	0.00	0.00	0.00
12H	4H	15.19	15.71	15.68	16.19	16.67	0.00	0.00	0.00	0.00	0.17
	6H	15.07	15.50	15.59	16.01	16.51	0.00	0.00	0.00	0.00	0.03
	8H	15.02	15.40	15.54	15.89	16.47	0.00	0.00	0.00	0.00	0.00