

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: P1061004

Luminaire Tested: S124RDR-H795D935-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061004
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D935-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

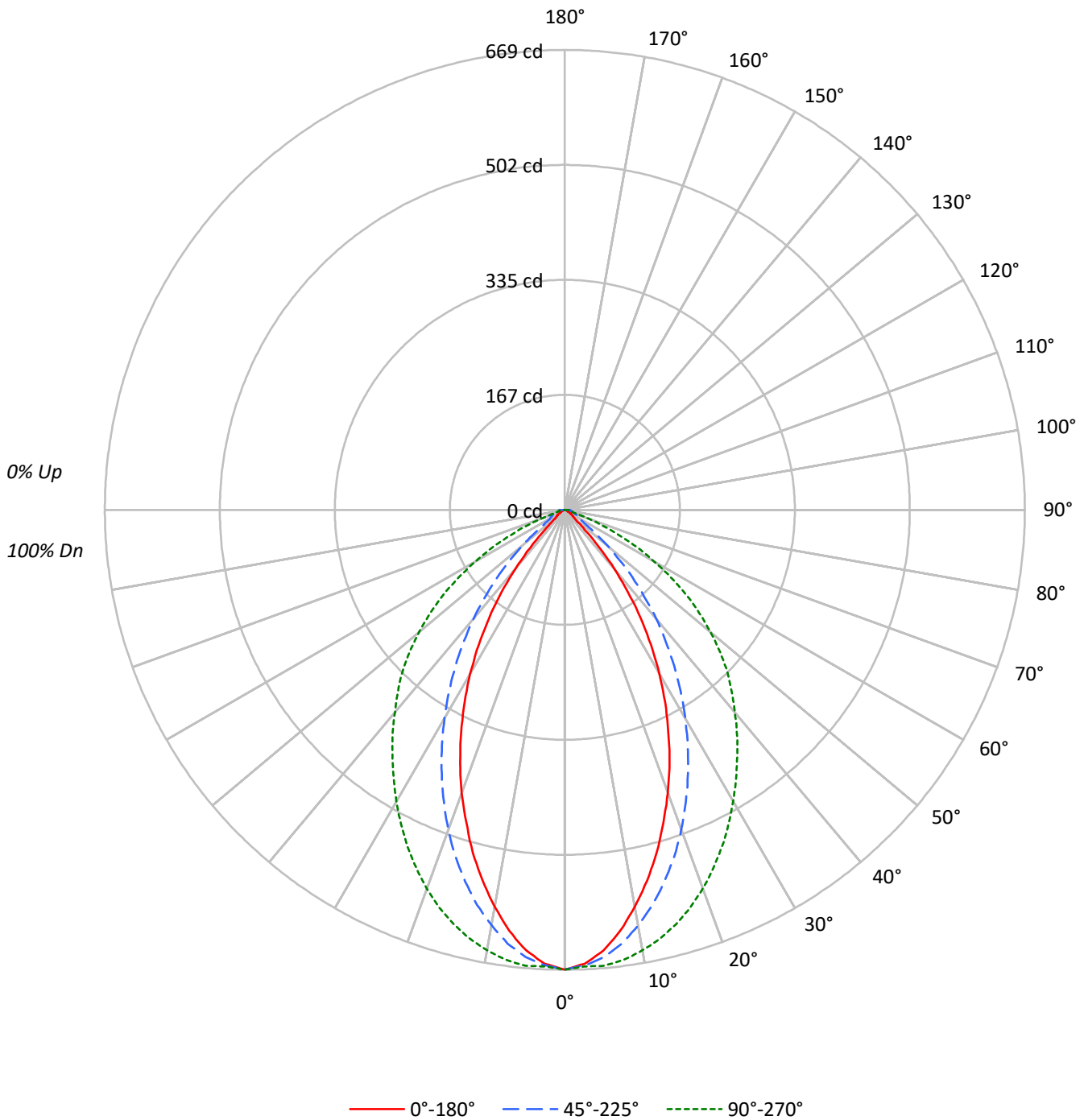
Lumens per Lamp: N/A
Luminaire Lumens: 842.8 lumens
Efficiency: N/A
Efficacy: 35.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5758	5758	5758
5°	5563	5645	5753
10°	5127	5367	5690
15°	4605	4989	5563
20°	4014	4539	5373
25°	3385	4027	5138
30°	2731	3481	4870
35°	2022	2913	4596
40°	1253	2320	4323
45°	497	1692	4072
50°	221	1062	3701
55°	177	554	3240
60°	122	419	2582
65°	79	416	1775
70°	78	375	831
75°	103	366	366
80°	154	426	426
85°	306	850	622

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4072 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.3	7.3
10°-20°	158.3	18.8
20°-30°	199.8	23.7
30°-40°	183.4	21.8
40°-50°	124.9	14.8
50°-60°	68.0	8.1
60°-70°	29.4	3.5
70°-80°	10.7	1.3
80°-90°	6.9	0.8
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°	419.5	49.8
0°-40°	602.9	71.5
0°-60°	795.8	94.4
0°-90°	842.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	842.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	669	669	669	669	669	
5°	644	652	653	660	666	60
15°	516	534	560	600	624	144
25°	356	382	424	491	541	163
35°	192	221	277	365	437	119
45°	41	68	139	246	334	38
55°	12	13	37	136	216	10
65°	4	6	20	42	87	5
75°	3	10	11	11	11	3
85°	3	7	9	9	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	668.7	668.7	668.7	668.7	668.7
2.5°	660.9	668.7	663.2	664.8	664.8
5°	643.6	652.2	653.0	660.1	665.6
7.5°	617.7	630.3	636.5	650.7	660.1
10°	586.3	601.2	613.8	638.1	650.7
12.5°	552.6	569.8	588.7	620.8	638.9
15°	516.5	534.5	559.6	599.7	624.0
17.5°	476.4	498.4	529.0	576.9	606.7
20°	438.0	459.9	495.3	549.4	586.3
22.5°	397.9	420.7	459.9	520.4	564.3
25°	356.3	381.5	423.8	491.3	540.8
27.5°	315.5	342.2	387.0	460.7	515.7
30°	274.7	301.4	350.1	429.3	489.8
32.5°	233.1	260.6	313.2	396.4	463.1
35°	192.3	220.6	277.1	365.0	437.2
37.5°	150.7	180.5	241.0	334.4	411.3
40°	111.5	141.3	206.4	303.8	384.6
42.5°	74.6	104.4	171.1	273.9	359.5
45°	40.8	68.3	138.9	246.5	334.4
47.5°	22.0	37.7	107.5	219.8	306.1
50°	16.5	20.4	79.3	191.5	276.3
52.5°	14.1	15.7	54.9	161.7	246.5
55°	11.8	12.6	36.9	135.8	215.8
57.5°	9.4	10.2	27.5	109.9	182.9
60°	7.1	8.6	24.3	84.8	149.9
62.5°	5.5	7.1	22.8	62.0	118.5
65°	3.9	5.5	20.4	42.4	87.1
67.5°	3.9	6.3	17.3	27.5	58.9
70°	3.1	8.6	14.9	18.1	33.0
72.5°	3.1	9.4	12.6	12.6	12.6
75°	3.1	10.2	11.0	11.0	11.0
77.5°	3.1	9.4	10.2	9.4	9.4
80°	3.1	8.6	8.6	8.6	8.6
82.5°	3.1	7.8	8.6	8.6	7.1
85°	3.1	7.1	8.6	8.6	6.3
87.5°	2.4	7.1	7.8	7.8	4.7
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	0.00	0.00	0.00	0.00	0.00	14.49	15.77	14.86	16.08	16.40
	3H	0.00	0.00	0.00	0.00	0.36	14.87	16.00	15.25	16.33	16.70
	4H	0.00	0.80	0.15	1.15	1.54	14.85	15.90	15.25	16.25	16.63
	6H	0.92	1.89	1.33	2.26	2.65	14.83	15.80	15.25	16.17	16.57
	8H	1.50	2.42	1.93	2.81	3.21	14.84	15.75	15.27	16.14	16.55
	12H	2.17	3.04	2.60	3.43	3.86	14.85	15.72	15.28	16.11	16.54
4H	2H	0.73	1.79	1.14	2.14	2.52	14.30	15.36	14.71	15.71	16.09
	3H	2.31	3.17	2.73	3.58	3.98	14.72	15.58	15.14	15.99	16.39
	4H	3.61	4.37	4.04	4.79	5.24	14.72	15.49	15.16	15.91	16.35
	6H	4.73	5.39	5.19	5.83	6.30	14.76	15.42	15.23	15.87	16.34
	8H	5.23	5.85	5.70	6.29	6.77	14.79	15.41	15.26	15.85	16.33
	12H	5.78	6.32	6.26	6.81	7.28	14.85	15.40	15.34	15.88	16.36
8H	4H	4.69	5.31	5.16	5.76	6.23	14.63	15.25	15.10	15.70	16.17
	6H	6.23	6.73	6.73	7.23	7.71	14.71	15.21	15.21	15.71	16.19
	8H	7.03	7.48	7.55	8.00	8.49	14.79	15.25	15.32	15.76	16.26
	12H	7.86	8.26	8.38	8.76	9.33	14.96	15.36	15.48	15.86	16.43
12H	4H	4.88	5.43	5.37	5.91	6.39	14.60	15.14	15.08	15.62	16.10
	6H	6.58	7.04	7.10	7.55	8.04	14.68	15.14	15.21	15.65	16.15
	8H	7.59	7.99	8.10	8.48	9.06	14.82	15.22	15.33	15.72	16.29