

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: P1061005

Luminaire Tested: S124RDR-H795D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061005
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-H795D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

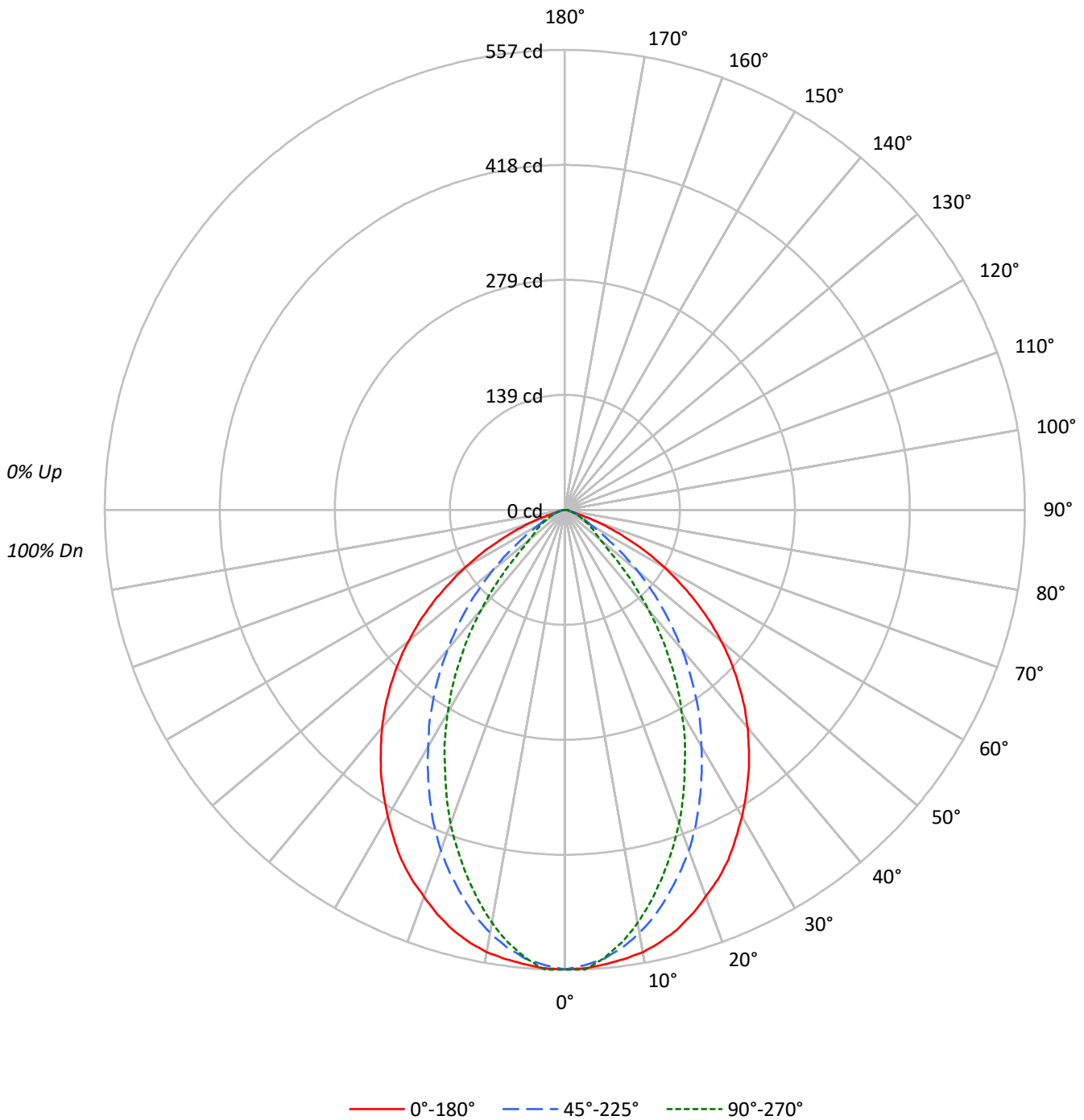
Lumens per Lamp: N/A
Luminaire Lumens: 820.6 lumens
Efficiency: N/A
Efficacy: 34.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4792	4792	4792
5°	4777	4716	4709
10°	4757	4551	4441
15°	4689	4305	4088
20°	4568	4023	3707
25°	4447	3671	3262
30°	4264	3289	2814
35°	4079	2909	2323
40°	3868	2476	1763
45°	3618	2024	1184
50°	3308	1533	735
55°	2907	1012	623
60°	2403	622	513
65°	1740	479	416
70°	947	355	315
75°	210	260	286
80°	154	193	233
85°	158	158	237

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3618 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.6	6.3
10°-20°	137.0	16.7
20°-30°	181.4	22.1
30°-40°	180.1	21.9
40°-50°	138.6	16.9
50°-60°	82.6	10.1
60°-70°	37.6	4.6
70°-80°	9.7	1.2
80°-90°	2.2	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°	369.9	45.1
0°-40°	550.0	67.0
0°-60°	771.1	94.0
0°-90°	820.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	820.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	553	553	546	546	545	52
15°	526	513	483	466	459	148
25°	468	434	386	354	343	215
35°	388	339	277	234	221	242
45°	297	239	166	116	97	229
55°	194	138	67	42	42	172
65°	85	51	24	20	20	86
75°	6	8	8	9	9	13
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	556.5	556.5	556.5	556.5	556.5
2.5°	555.8	556.5	551.8	555.8	557.3
5°	552.6	553.4	545.6	545.6	544.8
7.5°	548.7	547.1	534.6	529.9	528.3
10°	544.0	538.5	520.5	511.1	507.9
12.5°	536.2	527.5	503.2	489.9	484.4
15°	526.0	512.6	482.9	466.4	458.6
17.5°	513.4	497.0	461.7	440.5	431.9
20°	498.5	476.6	439.0	412.3	404.5
22.5°	484.4	457.0	413.9	383.3	374.7
25°	468.0	434.3	386.4	354.3	343.3
27.5°	448.4	412.3	359.0	326.1	315.1
30°	428.8	388.8	330.8	296.3	283.0
32.5°	408.4	364.5	304.9	265.7	253.2
35°	388.0	339.4	276.7	234.4	221.0
37.5°	366.1	314.3	248.5	204.6	189.7
40°	344.1	290.0	220.3	175.6	156.8
42.5°	321.4	264.9	192.8	145.8	127.0
45°	297.1	239.1	166.2	116.0	97.2
47.5°	272.8	214.8	139.5	87.0	69.8
50°	246.9	188.9	114.4	63.5	54.9
52.5°	221.0	163.8	89.4	49.4	47.0
55°	193.6	138.0	67.4	42.3	41.5
57.5°	165.4	114.4	48.6	36.8	35.3
60°	139.5	92.5	36.1	31.4	29.8
62.5°	112.9	69.8	29.8	25.9	24.3
65°	85.4	51.0	23.5	20.4	20.4
67.5°	61.9	34.5	18.8	16.5	15.7
70°	37.6	21.2	14.1	13.3	12.5
72.5°	18.8	12.5	11.0	10.2	10.2
75°	6.3	7.8	7.8	8.6	8.6
77.5°	4.7	5.5	5.5	6.3	6.3
80°	3.1	3.9	3.9	4.7	4.7
82.5°	2.4	2.4	3.1	3.1	3.9
85°	1.6	1.6	1.6	2.4	2.4
87.5°	0.8	0.8	0.8	1.6	1.6
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	14.56	15.90	14.93	16.21	16.52	6.11	7.44	6.47	7.76	8.07
	3H	15.07	16.25	15.45	16.58	16.95	6.93	8.11	7.31	8.44	8.80
	4H	15.04	16.13	15.44	16.49	16.87	7.21	8.31	7.61	8.66	9.04
	6H	14.97	15.98	15.39	16.35	16.74	7.38	8.39	7.80	8.76	9.15
	8H	14.93	15.89	15.36	16.28	16.68	7.45	8.40	7.88	8.79	9.20
	12H	14.90	15.81	15.33	16.19	16.62	7.49	8.40	7.92	8.79	9.22
4H	2H	14.40	15.50	14.81	15.85	16.24	6.55	7.65	6.95	8.00	8.38
	3H	14.96	15.85	15.37	16.26	16.66	7.51	8.41	7.93	8.81	9.22
	4H	14.93	15.72	15.36	16.14	16.59	7.88	8.67	8.31	9.09	9.54
	6H	14.87	15.56	15.34	16.01	16.47	8.13	8.82	8.59	9.26	9.73
	8H	14.83	15.47	15.30	15.91	16.39	8.22	8.86	8.69	9.30	9.78
	12H	14.79	15.35	15.28	15.84	16.31	8.30	8.86	8.78	9.34	9.82
8H	4H	14.82	15.46	15.29	15.90	16.37	7.97	8.61	8.44	9.05	9.52
	6H	14.75	15.28	15.26	15.77	16.25	8.28	8.80	8.78	9.30	9.78
	8H	14.71	15.18	15.23	15.69	16.18	8.41	8.88	8.93	9.39	9.88
	12H	14.68	15.09	15.19	15.59	16.16	8.55	8.96	9.06	9.46	10.03
12H	4H	14.77	15.34	15.26	15.82	16.30	7.94	8.50	8.43	8.99	9.46
	6H	14.70	15.17	15.22	15.68	16.18	8.26	8.73	8.78	9.24	9.73
	8H	14.67	15.09	15.19	15.58	16.15	8.43	8.84	8.94	9.34	9.91