

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: P1060744

Luminaire Tested: S124RDR-H1195D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060744  
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-H1195D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

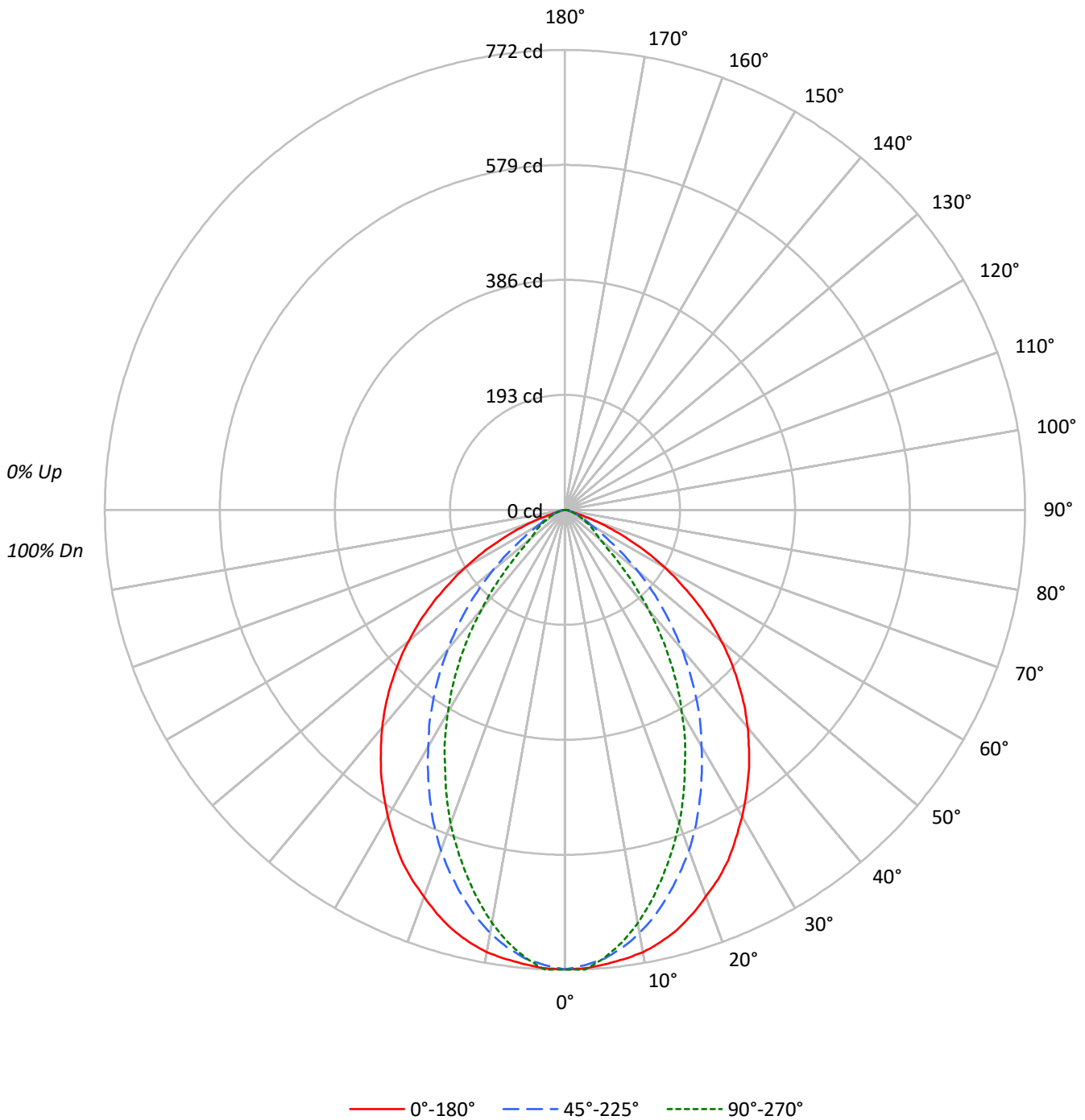
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1137.4 lumens  
Efficiency: N/A  
Efficacy: 31.2 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): 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	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°	6643	6643	6643
5°	6621	6537	6527
10°	6593	6309	6157
15°	6500	5967	5666
20°	6332	5576	5137
25°	6164	5090	4522
30°	5909	4559	3900
35°	5653	4031	3221
40°	5362	3432	2443
45°	5015	2805	1640
50°	4586	2125	1019
55°	4030	1402	865
60°	3331	861	711
65°	2412	664	575
70°	1314	493	438
75°	289	363	399
80°	213	268	322
85°	217	217	326

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5015 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.5	6.3
10°-20°	189.8	16.7
20°-30°	251.5	22.1
30°-40°	249.6	21.9
40°-50°	192.1	16.9
50°-60°	114.5	10.1
60°-70°	52.0	4.6
70°-80°	13.5	1.2
80°-90°	3.0	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°	512.8	45.1
0°-40°	762.4	67.0
0°-60°	1068.9	94.0
0°-90°	1137.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1137.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	771	771	771	771	771	
5°	766	767	756	756	755	73
15°	729	711	669	646	636	205
25°	649	602	536	491	476	298
35°	538	470	384	325	306	336
45°	412	331	230	161	135	317
55°	268	191	93	59	58	239
65°	118	71	33	28	28	119
75°	9	11	11	12	12	18
85°	2	2	2	3	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	771.4	771.4	771.4	771.4	771.4
2.5°	770.3	771.4	764.9	770.3	772.5
5°	766.0	767.1	756.2	756.2	755.1
7.5°	760.6	758.4	741.0	734.5	732.3
10°	754.0	746.4	721.5	708.4	704.1
12.5°	743.2	731.2	697.5	679.1	671.5
15°	729.1	710.6	669.3	646.5	635.6
17.5°	711.7	688.9	640.0	610.6	598.7
20°	691.0	660.6	608.5	571.5	560.6
22.5°	671.5	633.4	573.7	531.3	519.4
25°	648.7	601.9	535.7	491.1	475.9
27.5°	621.5	571.5	497.6	452.0	436.8
30°	594.3	538.9	458.5	410.7	392.2
32.5°	566.1	505.2	422.7	368.3	350.9
35°	537.8	470.5	383.5	324.9	306.4
37.5°	507.4	435.7	344.4	283.6	262.9
40°	477.0	402.0	305.3	243.4	217.3
42.5°	445.5	367.2	267.3	202.1	176.0
45°	411.8	331.4	230.3	160.8	134.7
47.5°	378.1	297.7	193.4	120.6	96.7
50°	342.3	261.9	158.6	88.0	76.1
52.5°	306.4	227.1	123.9	68.5	65.2
55°	268.4	191.2	93.4	58.7	57.6
57.5°	229.3	158.6	67.4	51.1	48.9
60°	193.4	128.2	50.0	43.5	41.3
62.5°	156.5	96.7	41.3	35.9	33.7
65°	118.4	70.6	32.6	28.2	28.2
67.5°	85.8	47.8	26.1	22.8	21.7
70°	52.2	29.3	19.6	18.5	17.4
72.5°	26.1	17.4	15.2	14.1	14.1
75°	8.7	10.9	10.9	12.0	12.0
77.5°	6.5	7.6	7.6	8.7	8.7
80°	4.3	5.4	5.4	6.5	6.5
82.5°	3.3	3.3	4.3	4.3	5.4
85°	2.2	2.2	2.2	3.3	3.3
87.5°	1.1	1.1	1.1	2.2	2.2
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	15.70	17.03	16.06	17.34	17.66	7.25	8.59	7.62	8.90	9.21
	3H	16.21	17.39	16.59	17.72	18.08	8.07	9.25	8.45	9.58	9.94
	4H	16.17	17.27	16.57	17.62	18.00	8.35	9.45	8.75	9.80	10.18
	6H	16.11	17.12	16.52	17.49	17.88	8.52	9.53	8.94	9.90	10.29
	8H	16.07	17.02	16.50	17.41	17.82	8.59	9.54	9.02	9.93	10.33
	12H	16.03	16.94	16.46	17.33	17.76	8.63	9.54	9.06	9.92	10.36
4H	2H	15.54	16.64	15.94	16.99	17.37	7.69	8.79	8.09	9.14	9.52
	3H	16.09	16.99	16.51	17.39	17.79	8.66	9.55	9.07	9.95	10.36
	4H	16.06	16.86	16.50	17.28	17.72	9.02	9.82	9.46	10.24	10.68
	6H	16.01	16.69	16.47	17.14	17.61	9.27	9.96	9.73	10.40	10.87
	8H	15.96	16.60	16.43	17.05	17.52	9.36	10.00	9.83	10.44	10.92
	12H	15.92	16.49	16.41	16.97	17.45	9.43	10.00	9.92	10.48	10.96
8H	4H	15.95	16.59	16.42	17.04	17.51	9.11	9.75	9.58	10.20	10.67
	6H	15.89	16.41	16.39	16.91	17.39	9.42	9.94	9.92	10.44	10.92
	8H	15.84	16.31	16.36	16.83	17.32	9.55	10.02	10.07	10.53	11.02
	12H	15.81	16.23	16.33	16.72	17.29	9.68	10.10	10.20	10.59	11.17
12H	4H	15.91	16.47	16.40	16.96	17.43	9.08	9.65	9.57	10.13	10.60
	6H	15.83	16.30	16.36	16.82	17.31	9.40	9.87	9.92	10.38	10.87
	8H	15.81	16.22	16.32	16.72	17.29	9.57	9.98	10.08	10.47	11.05