

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: P1060726

Luminaire Tested: S124RDR-H1195D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060726  
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-H1195D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

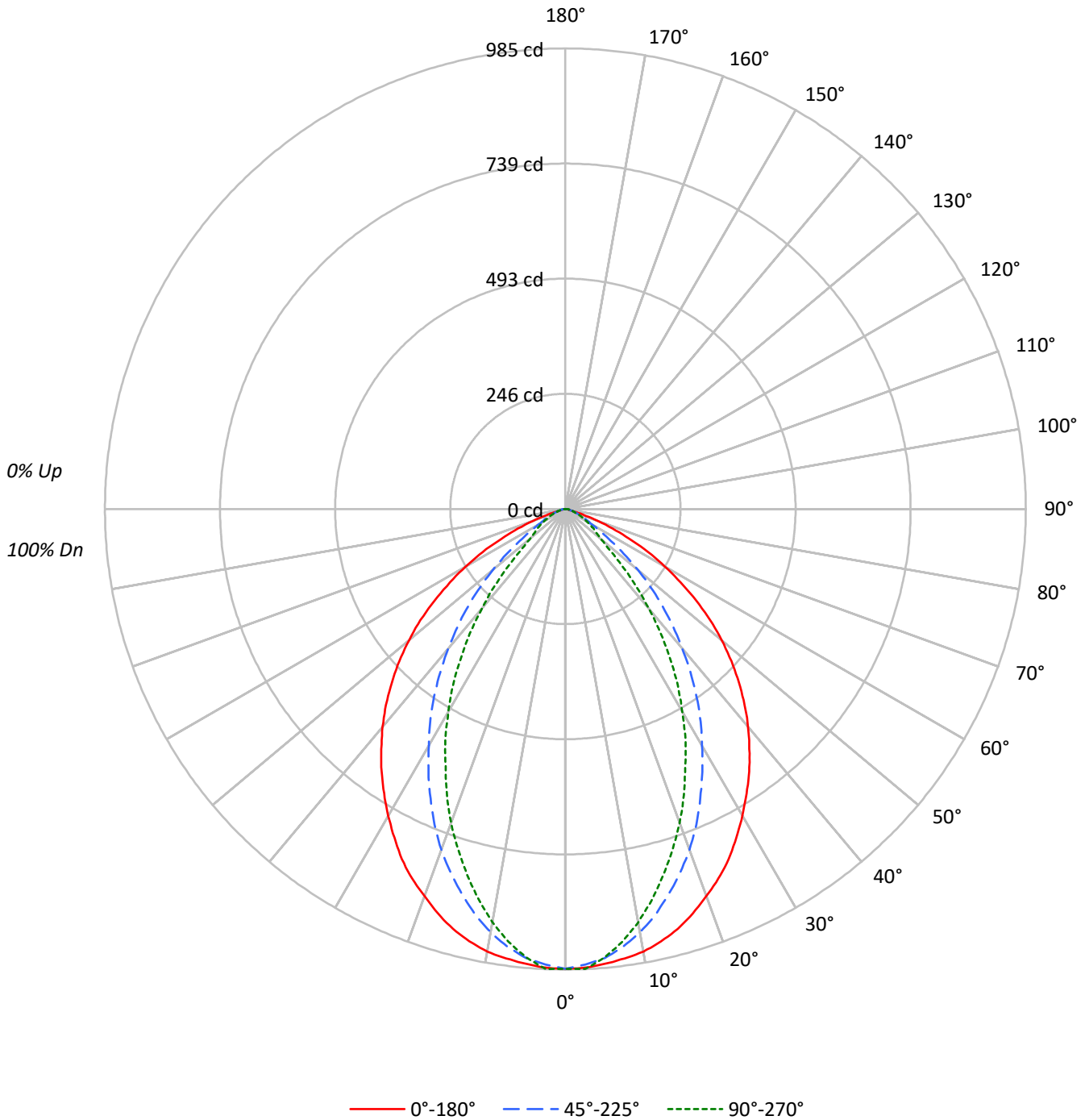
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1449.9 lumens  
Efficiency: N/A  
Efficacy: 39.7 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°	8468	8468	8468
5°	8441	8333	8321
10°	8406	8042	7848
15°	8286	7606	7224
20°	8072	7108	6549
25°	7857	6488	5764
30°	7533	5812	4972
35°	7207	5139	4106
40°	6836	4375	3114
45°	6393	3575	2092
50°	5845	2709	1299
55°	5136	1788	1102
60°	4245	1097	906
65°	3077	848	734
70°	1674	627	559
75°	369	462	506
80°	273	342	412
85°	277	277	415

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6393 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.1	6.3
10°-20°	242.0	16.7
20°-30°	320.6	22.1
30°-40°	318.2	21.9
40°-50°	244.8	16.9
50°-60°	145.9	10.1
60°-70°	66.3	4.6
70°-80°	17.2	1.2
80°-90°	3.8	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°	653.7	45.1
0°-40°	971.8	67.0
0°-60°	1362.6	94.0
0°-90°	1449.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1449.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	983	983	983	983	983	
5°	976	978	964	964	963	93
15°	929	906	853	824	810	261
25°	827	767	683	626	607	380
35°	686	600	489	414	391	428
45°	525	422	294	205	172	404
55°	342	244	119	75	73	305
65°	151	90	42	36	36	152
75°	11	14	14	15	15	23
85°	3	3	3	4	4	3
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	983.4	983.4	983.4	983.4	983.4
2.5°	982.0	983.4	975.1	982.0	984.8
5°	976.5	977.9	964.0	964.0	962.6
7.5°	969.6	966.8	944.6	936.3	933.6
10°	961.3	951.6	919.7	903.1	897.5
12.5°	947.4	932.2	889.2	865.7	856.0
15°	929.4	905.9	853.2	824.1	810.3
17.5°	907.2	878.1	815.8	778.4	763.2
20°	880.9	842.1	775.7	728.6	714.7
22.5°	856.0	807.5	731.3	677.3	662.1
25°	826.9	767.3	682.9	626.1	606.7
27.5°	792.3	728.6	634.4	576.2	556.8
30°	757.6	687.0	584.5	523.6	500.0
32.5°	721.6	644.1	538.8	469.5	447.4
35°	685.6	599.7	488.9	414.1	390.6
37.5°	646.8	555.4	439.1	361.5	335.2
40°	608.1	512.5	389.2	310.3	277.0
42.5°	567.9	468.2	340.7	257.6	224.4
45°	525.0	422.5	293.6	205.0	171.8
47.5°	482.0	379.5	246.5	153.7	123.3
50°	436.3	333.8	202.2	112.2	97.0
52.5°	390.6	289.5	157.9	87.3	83.1
55°	342.1	243.8	119.1	74.8	73.4
57.5°	292.3	202.2	85.9	65.1	62.3
60°	246.5	163.4	63.7	55.4	52.6
62.5°	199.5	123.3	52.6	45.7	42.9
65°	151.0	90.0	41.6	36.0	36.0
67.5°	109.4	60.9	33.2	29.1	27.7
70°	66.5	37.4	24.9	23.5	22.2
72.5°	33.2	22.2	19.4	18.0	18.0
75°	11.1	13.9	13.9	15.2	15.2
77.5°	8.3	9.7	9.7	11.1	11.1
80°	5.5	6.9	6.9	8.3	8.3
82.5°	4.2	4.2	5.5	5.5	6.9
85°	2.8	2.8	2.8	4.2	4.2
87.5°	1.4	1.4	1.4	2.8	2.8
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	16.54	17.88	16.91	18.19	18.50	8.09	9.42	8.46	9.74	10.05
	3H	17.05	18.23	17.43	18.56	18.92	8.91	10.09	9.29	10.42	10.78
	4H	17.02	18.11	17.42	18.46	18.85	9.19	10.29	9.59	10.64	11.02
	6H	16.95	17.96	17.37	18.33	18.72	9.36	10.37	9.77	10.74	11.13
	8H	16.91	17.87	17.34	18.26	18.66	9.42	10.38	9.85	10.77	11.17
	12H	16.87	17.79	17.31	18.17	18.60	9.47	10.38	9.90	10.76	11.20
4H	2H	16.38	17.48	16.79	17.83	18.22	8.53	9.63	8.94	9.98	10.36
	3H	16.94	17.83	17.35	18.23	18.64	9.50	10.39	9.91	10.79	11.20
	4H	16.91	17.70	17.34	18.12	18.56	9.86	10.65	10.29	11.07	11.52
	6H	16.85	17.54	17.32	17.99	18.45	10.11	10.80	10.57	11.24	11.71
	8H	16.81	17.45	17.28	17.89	18.36	10.20	10.84	10.67	11.28	11.76
	12H	16.77	17.33	17.25	17.82	18.29	10.27	10.84	10.76	11.32	11.80
8H	4H	16.80	17.44	17.26	17.88	18.35	9.95	10.59	10.42	11.03	11.51
	6H	16.73	17.26	17.24	17.75	18.23	10.26	10.78	10.76	11.28	11.76
	8H	16.69	17.16	17.21	17.67	18.16	10.39	10.86	10.91	11.37	11.86
	12H	16.66	17.07	17.17	17.56	18.14	10.53	10.94	11.04	11.43	12.01
12H	4H	16.75	17.32	17.24	17.80	18.27	9.92	10.49	10.41	10.97	11.44
	6H	16.68	17.15	17.20	17.66	18.15	10.24	10.71	10.76	11.22	11.71
	8H	16.65	17.07	17.17	17.56	18.13	10.41	10.82	10.92	11.32	11.89