

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: P1060908

Luminaire Tested: S124RDR-H575D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060908  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H575D927-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

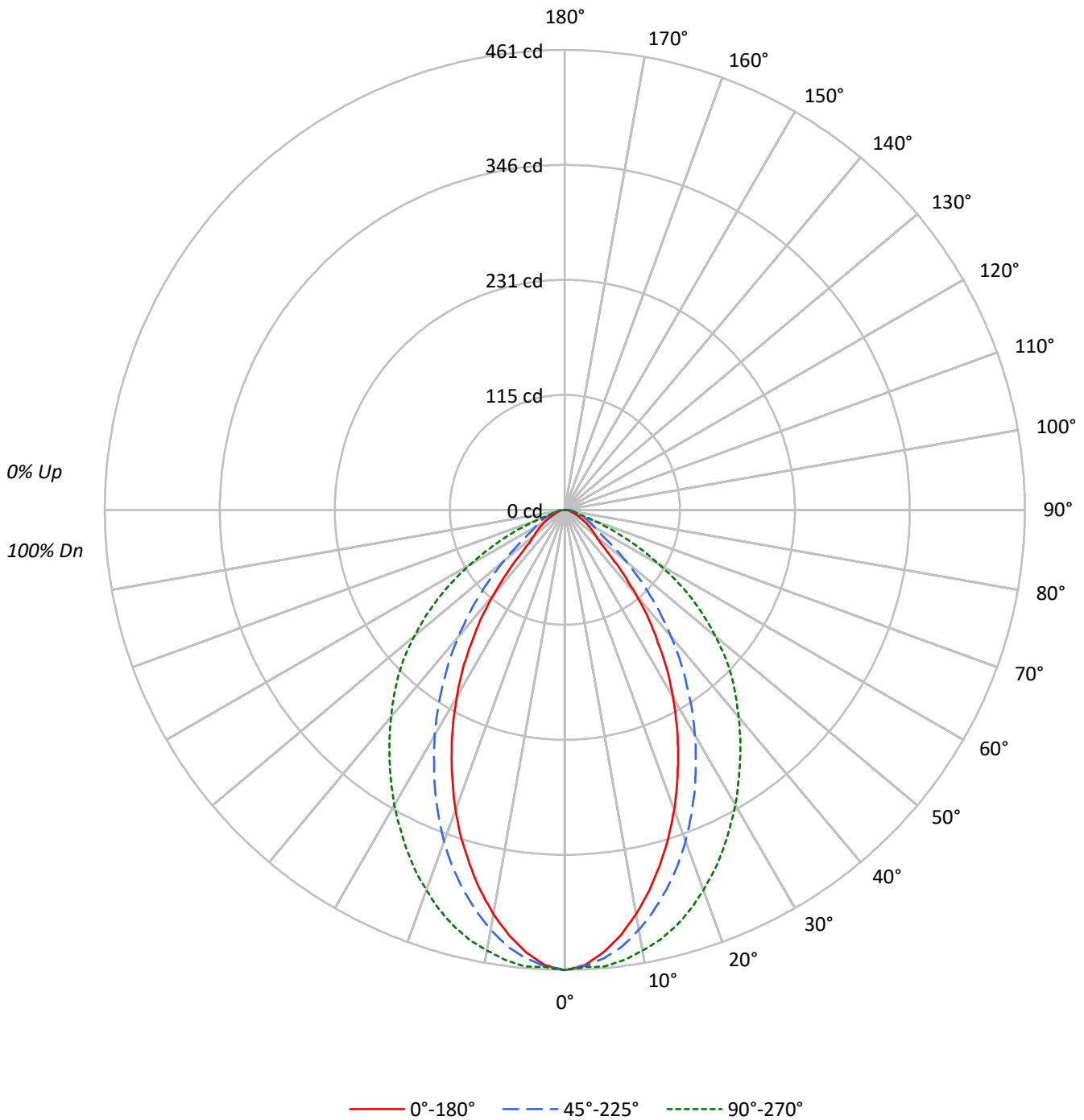
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 653.1 lumens  
Efficiency: N/A  
Efficacy: 37.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3973	3973	3973
5°	3850	3899	3970
10°	3597	3737	3922
15°	3282	3512	3847
20°	2933	3241	3718
25°	2552	2929	3566
30°	2153	2594	3399
35°	1712	2233	3219
40°	1246	1860	3043
45°	754	1469	2881
50°	539	1064	2638
55°	456	719	2330
60°	374	586	1882
65°	293	526	1355
70°	247	441	715
75°	223	413	359
80°	228	407	357
85°	306	613	405

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2881 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.5	6.5
10°-20°	111.3	17.0
20°-30°	144.4	22.1
30°-40°	139.0	21.3
40°-50°	103.4	15.8
50°-60°	63.6	9.7
60°-70°	31.2	4.8
70°-80°	12.2	1.9
80°-90°	5.6	0.9
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°	298.2	45.7
0°-40°	437.1	66.9
0°-60°	604.1	92.5
0°-90°	653.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	653.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	461	461	461	461	461	
5°	445	452	451	455	459	41
15°	368	380	394	418	432	103
25°	269	283	308	347	375	123
35°	163	178	212	266	306	102
45°	62	77	121	186	237	51
55°	30	31	48	109	155	27
65°	14	16	26	41	66	15
75°	7	12	12	11	11	7
85°	3	6	6	6	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	461.4	461.4	461.4	461.4	461.4
2.5°	456.8	461.9	457.8	458.3	458.8
5°	445.4	452.1	451.1	455.2	459.3
7.5°	429.9	437.7	441.3	449.5	455.2
10°	411.4	420.2	427.4	440.8	448.5
12.5°	390.8	401.1	411.4	429.4	441.3
15°	368.1	379.9	393.9	417.6	431.5
17.5°	344.9	356.7	374.8	402.1	419.6
20°	320.1	333.0	353.7	384.1	405.7
22.5°	294.4	308.3	331.0	365.5	391.3
25°	268.6	283.0	308.3	346.9	375.3
27.5°	242.8	256.7	284.1	327.4	358.3
30°	216.5	231.0	260.9	306.2	341.8
32.5°	191.3	204.7	236.6	286.1	323.8
35°	162.9	178.4	212.4	265.5	306.2
37.5°	138.7	152.6	189.2	244.9	288.7
40°	110.8	126.3	165.5	224.8	270.7
42.5°	85.1	100.5	142.8	204.7	253.6
45°	61.9	76.8	120.6	186.1	236.6
47.5°	46.9	55.7	99.0	168.1	217.6
50°	40.2	42.8	79.4	148.5	196.9
52.5°	35.6	36.6	61.9	128.9	176.3
55°	30.4	31.4	47.9	109.3	155.2
57.5°	25.8	26.3	38.7	90.7	132.5
60°	21.7	22.2	34.0	72.7	109.3
62.5°	18.0	18.6	30.4	56.2	87.1
65°	14.4	15.5	25.8	41.2	66.5
67.5°	11.9	13.9	21.7	28.9	46.4
70°	9.8	13.4	17.5	20.1	28.4
72.5°	8.2	12.4	15.0	14.4	13.9
75°	6.7	11.9	12.4	11.3	10.8
77.5°	5.7	10.3	10.3	9.3	8.8
80°	4.6	8.2	8.2	8.2	7.2
82.5°	4.1	6.7	7.2	7.2	5.7
85°	3.1	5.7	6.2	6.2	4.1
87.5°	2.1	5.2	5.7	5.2	3.1
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	4.58	5.92	4.95	6.24	6.55	13.74	15.09	14.11	15.40	15.71
	3H	5.69	6.88	6.07	7.21	7.58	14.25	15.44	14.63	15.77	16.14
	4H	6.21	7.32	6.61	7.67	8.05	14.27	15.38	14.67	15.73	16.11
	6H	6.64	7.66	7.06	8.03	8.43	14.28	15.30	14.70	15.67	16.07
	8H	6.83	7.80	7.26	8.19	8.59	14.29	15.25	14.72	15.64	16.05
	12H	7.01	7.94	7.44	8.32	8.75	14.29	15.21	14.72	15.60	16.03
4H	2H	5.73	6.84	6.13	7.19	7.57	13.64	14.75	14.04	15.10	15.48
	3H	7.07	7.98	7.48	8.38	8.78	14.23	15.14	14.64	15.54	15.94
	4H	7.80	8.62	8.24	9.04	9.48	14.28	15.10	14.72	15.52	15.96
	6H	8.41	9.11	8.87	9.56	10.02	14.36	15.06	14.82	15.51	15.97
	8H	8.65	9.31	9.12	9.75	10.22	14.39	15.05	14.86	15.49	15.96
	12H	8.89	9.47	9.37	9.95	10.42	14.43	15.01	14.92	15.49	15.97
8H	4H	8.27	8.93	8.74	9.37	9.84	14.24	14.90	14.71	15.35	15.82
	6H	9.11	9.65	9.61	10.15	10.63	14.37	14.91	14.87	15.40	15.88
	8H	9.52	10.00	10.04	10.52	11.01	14.45	14.94	14.97	15.45	15.94
	12H	9.94	10.37	10.46	10.86	11.44	14.57	15.00	15.09	15.50	16.07
12H	4H	8.32	8.90	8.81	9.39	9.86	14.22	14.80	14.70	15.28	15.75
	6H	9.24	9.73	9.76	10.24	10.73	14.35	14.83	14.87	15.35	15.84
	8H	9.76	10.19	10.28	10.69	11.26	14.48	14.91	15.00	15.41	15.98