

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060980

Luminaire Tested: S124RDRP-H795D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060980  
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: S124RDRP-H795D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

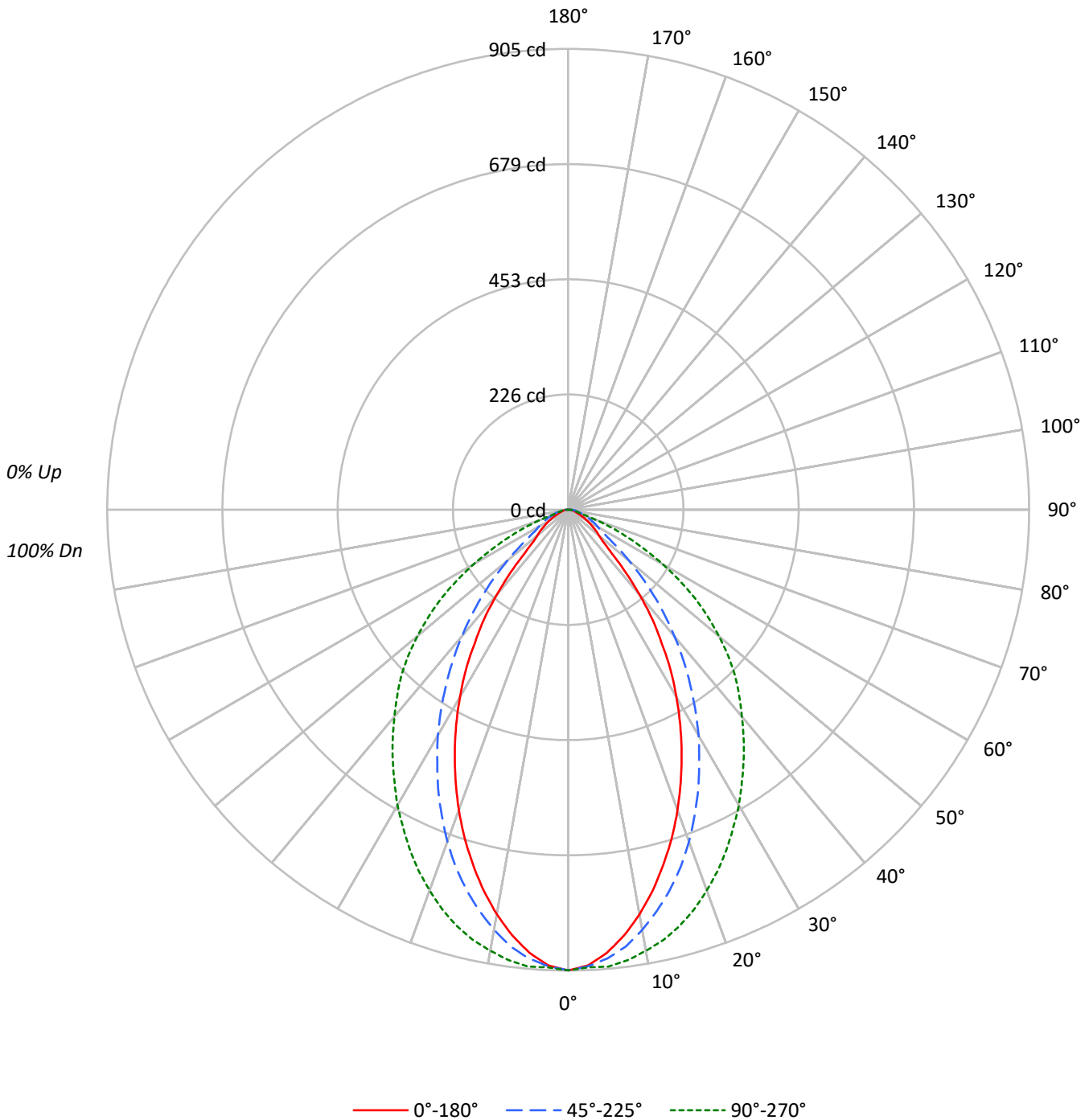
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1280.4 lumens  
Efficiency: N/A  
Efficacy: 54.5 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): 23.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	7790	7790	7790
5°	7549	7645	7785
10°	7053	7327	7689
15°	6434	6884	7542
20°	5752	6354	7290
25°	5003	5743	6991
30°	4221	5085	6663
35°	3358	4377	6312
40°	2443	3647	5964
45°	1477	2880	5649
50°	1056	2086	5172
55°	895	1411	4567
60°	732	1149	3691
65°	577	1029	2657
70°	483	866	1400
75°	436	808	705
80°	451	803	704
85°	603	1196	800

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5649 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.3	6.5
10°-20°	218.2	17.0
20°-30°	283.0	22.1
30°-40°	272.5	21.3
40°-50°	202.7	15.8
50°-60°	124.7	9.7
60°-70°	61.2	4.8
70°-80°	23.9	1.9
80°-90°	10.9	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°	584.6	45.7
0°-40°	857.0	66.9
0°-60°	1184.4	92.5
0°-90°	1280.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1280.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	873	886	884	892	901	81
15°	722	745	772	819	846	202
25°	527	555	604	680	736	241
35°	319	350	416	520	600	200
45°	121	151	236	365	464	101
55°	60	62	94	214	304	54
65°	28	30	50	81	130	29
75°	13	23	24	22	21	14
85°	6	11	12	12	8	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	904.6	904.6	904.6	904.6	904.6
2.5°	895.5	905.6	897.5	898.5	899.6
5°	873.3	886.4	884.4	892.5	900.6
7.5°	843.0	858.1	865.2	881.4	892.5
10°	806.6	823.8	837.9	864.2	879.3
12.5°	766.1	786.4	806.6	841.9	865.2
15°	721.7	744.9	772.2	818.7	846.0
17.5°	676.2	699.4	734.8	788.4	822.7
20°	627.7	652.9	693.4	753.0	795.5
22.5°	577.1	604.4	648.9	716.6	767.2
25°	526.6	554.9	604.4	680.2	735.8
27.5°	476.1	503.3	556.9	641.8	702.5
30°	424.5	452.8	511.4	600.4	670.1
32.5°	375.0	401.3	463.9	561.0	634.7
35°	319.4	349.7	416.4	520.5	600.4
37.5°	271.9	299.2	370.9	480.1	566.0
40°	217.3	247.6	324.4	440.7	530.6
42.5°	166.8	197.1	280.0	401.3	497.3
45°	121.3	150.6	236.5	364.9	463.9
47.5°	92.0	109.2	194.1	329.5	426.5
50°	78.8	83.9	155.7	291.1	386.1
52.5°	69.7	71.8	121.3	252.7	345.7
55°	59.6	61.7	94.0	214.3	304.2
57.5°	50.5	51.5	75.8	177.9	259.8
60°	42.5	43.5	66.7	142.5	214.3
62.5°	35.4	36.4	59.6	110.2	170.8
65°	28.3	30.3	50.5	80.9	130.4
67.5°	23.2	27.3	42.5	56.6	91.0
70°	19.2	26.3	34.4	39.4	55.6
72.5°	16.2	24.3	29.3	28.3	27.3
75°	13.1	23.2	24.3	22.2	21.2
77.5°	11.1	20.2	20.2	18.2	17.2
80°	9.1	16.2	16.2	16.2	14.2
82.5°	8.1	13.1	14.2	14.2	11.1
85°	6.1	11.1	12.1	12.1	8.1
87.5°	4.0	10.1	11.1	10.1	6.1
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	6.91	8.25	7.28	8.57	8.88	16.09	17.43	16.45	17.74	18.06
	3H	8.02	9.21	8.40	9.54	9.91	16.59	17.78	16.97	18.11	18.48
	4H	8.54	9.65	8.94	10.00	10.38	16.61	17.72	17.01	18.07	18.46
	6H	8.97	10.00	9.39	10.37	10.76	16.62	17.64	17.04	18.01	18.41
	8H	9.17	10.13	9.60	10.52	10.93	16.63	17.59	17.06	17.98	18.39
	12H	9.35	10.27	9.78	10.66	11.09	16.63	17.55	17.06	17.94	18.37
4H	2H	8.06	9.17	8.46	9.52	9.90	15.98	17.09	16.38	17.44	17.82
	3H	9.40	10.31	9.81	10.71	11.12	16.57	17.48	16.98	17.88	18.28
	4H	10.13	10.95	10.57	11.36	11.81	16.62	17.44	17.06	17.86	18.30
	6H	10.74	11.45	11.20	11.89	12.36	16.70	17.40	17.16	17.85	18.32
	8H	10.99	11.64	11.45	12.09	12.56	16.73	17.39	17.20	17.83	18.30
	12H	11.22	11.80	11.71	12.29	12.76	16.77	17.35	17.26	17.84	18.31
8H	4H	10.60	11.26	11.07	11.70	12.17	16.58	17.24	17.05	17.69	18.16
	6H	11.45	11.99	11.95	12.48	12.97	16.71	17.25	17.21	17.74	18.23
	8H	11.86	12.34	12.38	12.86	13.35	16.79	17.28	17.32	17.79	18.28
	12H	12.28	12.71	12.79	13.20	13.77	16.92	17.34	17.43	17.84	18.41
12H	4H	10.65	11.24	11.14	11.72	12.19	16.56	17.14	17.04	17.62	18.09
	6H	11.58	12.07	12.11	12.58	13.07	16.69	17.18	17.21	17.69	18.18
	8H	12.11	12.53	12.62	13.03	13.60	16.83	17.25	17.34	17.75	18.32