

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: P1060549

Luminaire Tested: S124RDRP-S795D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060549  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S795D830-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

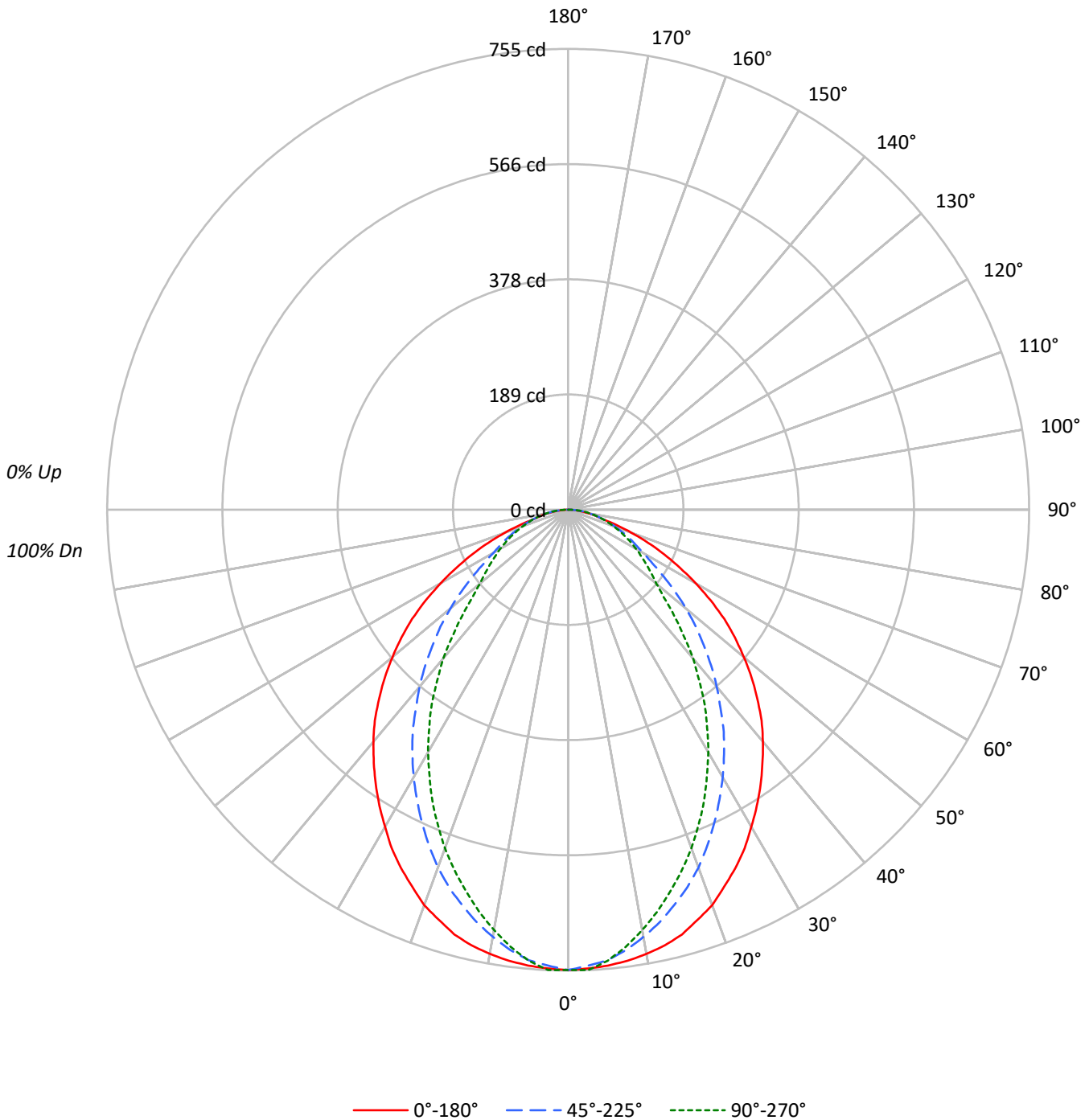
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1454.1 lumens  
Efficiency: N/A  
Efficacy: 56.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
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	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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88					86				
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76					74				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66					64				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46					44				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42					40				
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38					36				
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35					33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32					30				

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

	0°	45°	90°
0°	6494	6494	6494
5°	6480	6403	6411
10°	6462	6214	6114
15°	6422	5980	5767
20°	6318	5716	5408
25°	6155	5380	5002
30°	5965	5031	4564
35°	5775	4667	4099
40°	5578	4254	3576
45°	5332	3820	2990
50°	5033	3372	2528
55°	4683	2860	2342
60°	4151	2427	2213
65°	3539	2239	2095
70°	2767	2075	1986
75°	1886	1916	1916
80°	1627	1800	1845
85°	1403	1749	1927

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5332 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.2	4.8
10°-20°	190.5	13.1
20°-30°	264.5	18.2
30°-40°	283.6	19.5
40°-50°	251.2	17.3
50°-60°	189.3	13.0
60°-70°	122.6	8.4
70°-80°	62.9	4.3
80°-90°	19.3	1.3
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°	525.2	36.1
0°-40°	808.8	55.6
0°-60°	1249.3	85.9
0°-90°	1454.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1454.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	750	751	741	742	742	71
15°	720	704	671	654	647	203
25°	648	613	566	536	526	298
35°	549	500	444	404	390	344
45°	438	381	314	265	246	338
55°	312	260	190	160	156	277
65°	174	140	110	104	103	172
75°	57	59	58	58	58	67
85°	14	15	18	20	20	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	754.1	754.1	754.1	754.1	754.1
2.5°	752.3	755.0	747.9	753.2	755.0
5°	749.7	750.6	740.8	741.7	741.7
7.5°	745.2	743.5	727.5	723.1	722.2
10°	739.0	733.7	710.7	701.8	699.2
12.5°	731.1	721.3	692.1	679.7	674.3
15°	720.4	704.5	670.8	654.0	646.9
17.5°	704.5	684.1	648.7	627.4	619.4
20°	689.4	661.9	623.8	597.3	590.2
22.5°	668.1	638.9	595.5	567.1	558.3
25°	647.8	613.2	566.2	536.1	526.4
27.5°	625.6	586.6	536.1	504.2	491.8
30°	599.9	558.3	506.0	472.3	459.0
32.5°	575.1	530.8	475.0	437.8	423.6
35°	549.4	499.8	444.0	404.1	389.9
37.5°	522.8	470.5	409.4	370.4	351.8
40°	496.2	441.3	378.4	334.1	318.1
42.5°	468.8	411.2	346.5	300.4	280.0
45°	437.8	381.0	313.7	265.0	245.5
47.5°	407.6	351.8	283.6	230.4	212.7
50°	375.7	320.8	251.7	200.3	188.7
52.5°	343.8	288.9	220.6	177.2	171.9
55°	311.9	259.6	190.5	160.4	156.0
57.5°	276.5	229.5	163.9	145.3	141.8
60°	241.0	196.7	140.9	131.1	128.5
62.5°	206.5	168.4	124.9	117.0	115.2
65°	173.7	140.0	109.9	103.7	102.8
67.5°	141.8	115.2	95.7	92.2	90.4
70°	109.9	92.2	82.4	80.6	78.9
72.5°	81.5	74.4	70.0	69.1	68.2
75°	56.7	59.4	57.6	57.6	57.6
77.5°	45.2	46.1	47.0	47.9	47.0
80°	32.8	35.4	36.3	38.1	37.2
82.5°	23.0	24.8	27.5	28.4	29.2
85°	14.2	15.1	17.7	19.5	19.5
87.5°	6.2	7.1	8.9	10.6	11.5
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	16.94	18.44	17.30	18.75	19.07	13.50	15.00	13.87	15.31	15.63
	3H	18.14	19.49	18.52	19.82	20.18	15.20	16.54	15.58	16.87	17.23
	4H	18.45	19.71	18.85	20.06	20.44	15.88	17.14	16.28	17.49	17.86
	6H	18.65	19.82	19.07	20.18	20.58	16.43	17.59	16.84	17.96	18.35
	8H	18.71	19.82	19.14	20.21	20.61	16.64	17.75	17.07	18.14	18.54
	12H	18.74	19.80	19.18	20.19	20.62	16.82	17.88	17.25	18.26	18.69
4H	2H	17.08	18.34	17.48	18.69	19.07	14.16	15.42	14.56	15.77	16.15
	3H	18.48	19.53	18.89	19.93	20.33	16.07	17.12	16.48	17.52	17.92
	4H	18.91	19.85	19.34	20.27	20.70	16.88	17.82	17.31	18.23	18.67
	6H	19.23	20.05	19.69	20.49	20.95	17.56	18.38	18.02	18.82	19.28
	8H	19.33	20.10	19.80	20.54	21.01	17.84	18.60	18.30	19.05	19.51
	12H	19.40	20.08	19.88	20.56	21.03	18.07	18.75	18.55	19.23	19.70
8H	4H	19.04	19.80	19.50	20.25	20.71	17.19	17.96	17.66	18.40	18.87
	6H	19.46	20.09	19.96	20.58	21.06	18.02	18.65	18.52	19.14	19.62
	8H	19.61	20.18	20.13	20.69	21.18	18.39	18.95	18.90	19.46	19.95
	12H	19.74	20.25	20.25	20.74	21.30	18.72	19.22	19.23	19.71	20.28
12H	4H	19.04	19.73	19.53	20.20	20.68	17.22	17.90	17.70	18.38	18.85
	6H	19.48	20.05	20.00	20.56	21.05	18.08	18.65	18.60	19.16	19.65
	8H	19.69	20.19	20.20	20.69	21.25	18.51	19.02	19.02	19.51	20.07