

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: P1060999

Luminaire Tested: S124RDR-H795D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060999  
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: S124RDR-H795D930-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

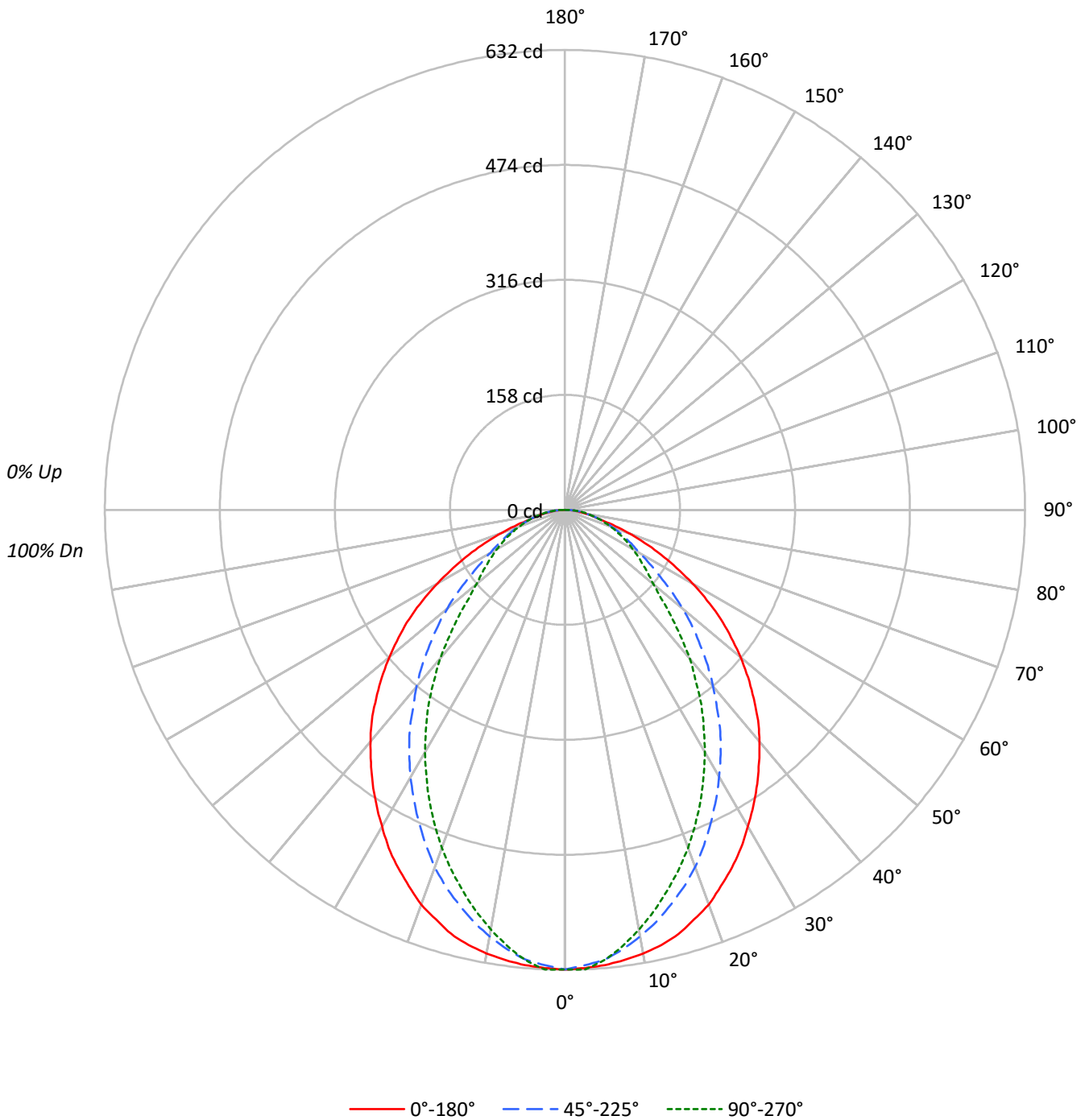
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1217.9 lumens  
Efficiency: N/A  
Efficacy: 51.8 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): 23.5  
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

TEST NUMBER: P1060999

CATALOG NUMBER: S124RDR-H795D930-X4F0-XX-UDD-WVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1060999

CATALOG NUMBER: S124RDR-H795D930-X4F0-XX-UDD-WVL-B

**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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				86
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74				74
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64				64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44				44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40				40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36				36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33				33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30				30

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

	0°	45°	90°
0°	5440	5440	5440
5°	5428	5364	5371
10°	5413	5205	5120
15°	5380	5009	4831
20°	5292	4789	4530
25°	5155	4506	4189
30°	4996	4214	3823
35°	4838	3910	3433
40°	4673	3562	2996
45°	4466	3200	2504
50°	4216	2824	2118
55°	3923	2396	1961
60°	3477	2032	1853
65°	2965	1875	1754
70°	2316	1737	1664
75°	1580	1604	1604
80°	1364	1508	1547
85°	1176	1462	1610

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4466 cd/sqm



TEST NUMBER: P1060999

CATALOG NUMBER: S124RDR-H795D930-X4F0-XX-UDD-WVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.8	4.8
10°-20°	159.6	13.1
20°-30°	221.6	18.2
30°-40°	237.5	19.5
40°-50°	210.4	17.3
50°-60°	158.6	13.0
60°-70°	102.7	8.4
70°-80°	52.7	4.3
80°-90°	16.2	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°	439.9	36.1
0°-40°	677.5	55.6
0°-60°	1046.4	85.9
0°-90°	1217.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1217.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	628	629	620	621	621	60
15°	604	590	562	548	542	170
25°	543	514	474	449	441	250
35°	460	419	372	338	327	288
45°	367	319	263	222	206	283
55°	261	218	160	134	131	232
65°	146	117	92	87	86	144
75°	48	50	48	48	48	56
85°	12	13	15	16	16	14
90°	0	0	0	0	0	



TEST NUMBER: P1060999

CATALOG NUMBER: S124RDR-H795D930-X4F0-XX-UDD-WVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	631.7	631.7	631.7	631.7	631.7
2.5°	630.2	632.4	626.5	630.9	632.4
5°	628.0	628.7	620.5	621.3	621.3
7.5°	624.2	622.8	609.4	605.7	604.9
10°	619.0	614.6	595.3	587.9	585.6
12.5°	612.4	604.2	579.7	569.3	564.9
15°	603.5	590.1	561.9	547.8	541.9
17.5°	590.1	573.0	543.3	525.5	518.8
20°	577.5	554.5	522.6	500.3	494.3
22.5°	559.7	535.2	498.8	475.0	467.6
25°	542.6	513.6	474.3	449.1	440.9
27.5°	524.0	491.4	449.1	422.3	412.0
30°	502.5	467.6	423.8	395.6	384.5
32.5°	481.7	444.6	397.9	366.7	354.8
35°	460.2	418.6	371.9	338.5	326.6
37.5°	437.9	394.1	342.9	310.3	294.7
40°	415.7	369.6	316.9	279.8	266.5
42.5°	392.7	344.4	290.2	251.6	234.6
45°	366.7	319.2	262.8	221.9	205.6
47.5°	341.4	294.7	237.5	193.0	178.1
50°	314.7	268.7	210.8	167.8	158.1
52.5°	288.0	242.0	184.8	148.5	144.0
55°	261.3	217.5	159.6	134.3	130.6
57.5°	231.6	192.2	137.3	121.7	118.8
60°	201.9	164.8	118.0	109.9	107.6
62.5°	172.9	141.0	104.7	98.0	96.5
65°	145.5	117.3	92.0	86.8	86.1
67.5°	118.8	96.5	80.2	77.2	75.7
70°	92.0	77.2	69.0	67.5	66.1
72.5°	68.3	62.3	58.6	57.9	57.2
75°	47.5	49.7	48.2	48.2	48.2
77.5°	37.9	38.6	39.3	40.1	39.3
80°	27.5	29.7	30.4	31.9	31.2
82.5°	19.3	20.8	23.0	23.8	24.5
85°	11.9	12.6	14.8	16.3	16.3
87.5°	5.2	5.9	7.4	8.9	9.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060999  
 CATALOG NUMBER: S124RDR-H795D930-X4F0-XX-UDD-WVL-B

**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	16.32	17.82	16.69	18.13	18.45	12.89	14.39	13.25	14.70	15.01
	3H	17.53	18.87	17.91	19.20	19.56	14.58	15.93	14.96	16.25	16.62
	4H	17.83	19.09	18.23	19.44	19.82	15.26	16.52	15.66	16.87	17.25
	6H	18.04	19.20	18.45	19.57	19.96	15.81	16.97	16.22	17.34	17.73
	8H	18.10	19.20	18.52	19.59	19.99	16.03	17.13	16.45	17.52	17.93
	12H	18.13	19.19	18.56	19.57	20.00	16.20	17.26	16.63	17.64	18.07
4H	2H	16.46	17.72	16.86	18.07	18.45	13.55	14.81	13.95	15.16	15.53
	3H	17.87	18.91	18.28	19.31	19.71	15.46	16.50	15.87	16.90	17.30
	4H	18.29	19.23	18.73	19.65	20.09	16.26	17.20	16.69	17.61	18.05
	6H	18.62	19.44	19.08	19.88	20.34	16.95	17.76	17.40	18.21	18.67
	8H	18.72	19.48	19.18	19.92	20.39	17.22	17.98	17.68	18.43	18.90
	12H	18.79	19.47	19.27	19.95	20.42	17.45	18.13	17.93	18.61	19.08
8H	4H	18.42	19.18	18.88	19.63	20.10	16.57	17.34	17.04	17.78	18.25
	6H	18.84	19.47	19.34	19.96	20.44	17.40	18.04	17.90	18.53	19.00
	8H	19.00	19.57	19.51	20.08	20.56	17.77	18.34	18.28	18.85	19.34
	12H	19.13	19.63	19.64	20.12	20.69	18.10	18.61	18.61	19.10	19.66
12H	4H	18.43	19.11	18.91	19.59	20.06	16.60	17.29	17.09	17.76	18.24
	6H	18.87	19.43	19.38	19.94	20.43	17.46	18.03	17.98	18.54	19.03
	8H	19.08	19.58	19.59	20.07	20.63	17.90	18.40	18.41	18.89	19.46