

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: P1061008

Luminaire Tested: S124RDR-H795D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061008
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-H795D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

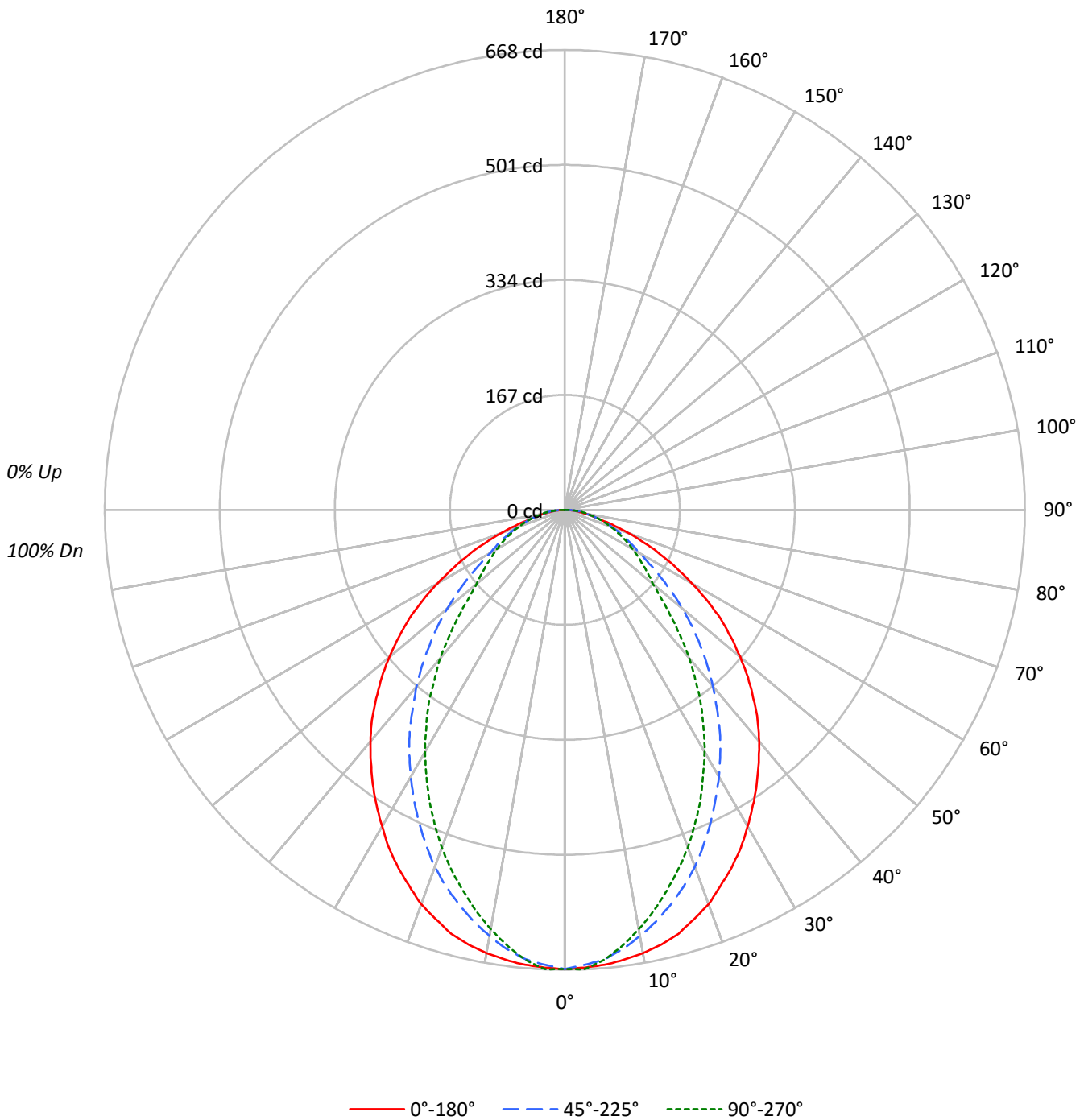
Lumens per Lamp: N/A
Luminaire Lumens: 1286.2 lumens
Efficiency: N/A
Efficacy: 54.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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: P1061008

CATALOG NUMBER: S124RDR-H795D935-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1061008

CATALOG NUMBER: S124RDR-H795D935-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				
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°	5744	5744	5744
5°	5733	5664	5671
10°	5716	5497	5408
15°	5681	5290	5101
20°	5588	5057	4784
25°	5444	4759	4424
30°	5277	4451	4037
35°	5109	4128	3626
40°	4935	3762	3163
45°	4715	3379	2644
50°	4453	2982	2237
55°	4142	2530	2072
60°	3672	2146	1958
65°	3130	1981	1852
70°	2447	1835	1757
75°	1670	1697	1697
80°	1438	1592	1631
85°	1235	1551	1699

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4715 cd/sqm



TEST NUMBER: P1061008

CATALOG NUMBER: S124RDR-H795D935-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.1	4.8
10°-20°	168.5	13.1
20°-30°	234.0	18.2
30°-40°	250.8	19.5
40°-50°	222.2	17.3
50°-60°	167.5	13.0
60°-70°	108.4	8.4
70°-80°	55.6	4.3
80°-90°	17.1	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°	464.6	36.1
0°-40°	715.4	55.6
0°-60°	1105.1	85.9
0°-90°	1286.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1286.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	663	664	655	656	656	63
15°	637	623	593	578	572	179
25°	573	542	501	474	466	264
35°	486	442	393	357	345	304
45°	387	337	278	234	217	299
55°	276	230	168	142	138	245
65°	154	124	97	92	91	152
75°	50	52	51	51	51	59
85°	12	13	16	17	17	14
90°	0	0	0	0	0	



TEST NUMBER: P1061008

CATALOG NUMBER: S124RDR-H795D935-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	667.1	667.1	667.1	667.1	667.1
2.5°	665.5	667.9	661.6	666.3	667.9
5°	663.2	663.9	655.3	656.1	656.1
7.5°	659.2	657.7	643.6	639.6	638.9
10°	653.7	649.0	628.7	620.8	618.5
12.5°	646.7	638.1	612.2	601.2	596.5
15°	637.3	623.2	593.4	578.5	572.2
17.5°	623.2	605.1	573.8	555.0	547.9
20°	609.8	585.5	551.8	528.3	522.1
22.5°	591.0	565.2	526.8	501.7	493.8
25°	573.0	542.4	500.9	474.2	465.6
27.5°	553.4	518.9	474.2	446.0	435.0
30°	530.7	493.8	447.6	417.8	406.0
32.5°	508.7	469.5	420.2	387.2	374.7
35°	486.0	442.1	392.7	357.4	344.9
37.5°	462.5	416.2	362.1	327.7	311.2
40°	439.0	390.4	334.7	295.5	281.4
42.5°	414.7	363.7	306.5	265.7	247.7
45°	387.2	337.1	277.5	234.4	217.1
47.5°	360.6	311.2	250.8	203.8	188.1
50°	332.4	283.8	222.6	177.2	167.0
52.5°	304.1	255.5	195.2	156.8	152.1
55°	275.9	229.7	168.5	141.9	138.0
57.5°	244.6	203.0	145.0	128.6	125.4
60°	213.2	174.0	124.6	116.0	113.7
62.5°	182.6	148.9	110.5	103.5	101.9
65°	153.6	123.9	97.2	91.7	90.9
67.5°	125.4	101.9	84.7	81.5	80.0
70°	97.2	81.5	72.9	71.3	69.8
72.5°	72.1	65.8	61.9	61.1	60.4
75°	50.2	52.5	51.0	51.0	51.0
77.5°	40.0	40.8	41.5	42.3	41.5
80°	29.0	31.4	32.1	33.7	32.9
82.5°	20.4	21.9	24.3	25.1	25.9
85°	12.5	13.3	15.7	17.2	17.2
87.5°	5.5	6.3	7.8	9.4	10.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1061008
 CATALOG NUMBER: S124RDR-H795D935-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	16.51	18.01	16.88	18.32	18.64	13.08	14.58	13.44	14.89	15.21
	3H	17.72	19.06	18.10	19.39	19.75	14.77	16.12	15.15	16.45	16.81
	4H	18.02	19.28	18.42	19.63	20.01	15.45	16.71	15.85	17.06	17.44
	6H	18.23	19.39	18.64	19.76	20.15	16.00	17.16	16.41	17.53	17.92
	8H	18.29	19.39	18.71	19.78	20.18	16.22	17.33	16.64	17.71	18.12
	12H	18.32	19.38	18.75	19.76	20.19	16.39	17.45	16.82	17.83	18.26
4H	2H	16.65	17.91	17.05	18.26	18.64	13.74	15.00	14.14	15.35	15.73
	3H	18.06	19.10	18.47	19.50	19.90	15.65	16.69	16.06	17.09	17.49
	4H	18.48	19.42	18.92	19.84	20.28	16.45	17.39	16.88	17.81	18.25
	6H	18.81	19.63	19.27	20.07	20.53	17.14	17.96	17.60	18.40	18.86
	8H	18.91	19.67	19.37	20.11	20.58	17.41	18.18	17.88	18.62	19.09
	12H	18.98	19.66	19.46	20.14	20.61	17.64	18.32	18.12	18.80	19.27
8H	4H	18.61	19.37	19.07	19.82	20.29	16.77	17.53	17.23	17.98	18.44
	6H	19.03	19.66	19.53	20.16	20.63	17.59	18.23	18.09	18.72	19.20
	8H	19.19	19.76	19.70	20.27	20.75	17.96	18.53	18.48	19.04	19.53
	12H	19.32	19.82	19.83	20.31	20.88	18.29	18.80	18.80	19.29	19.85
12H	4H	18.62	19.30	19.10	19.78	20.25	16.80	17.48	17.28	17.96	18.43
	6H	19.06	19.62	19.57	20.13	20.62	17.65	18.22	18.17	18.73	19.22
	8H	19.27	19.77	19.78	20.26	20.82	18.09	18.59	18.60	19.08	19.65