

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: P1060975

Luminaire Tested: S124RDR-H795D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060975
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D850-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

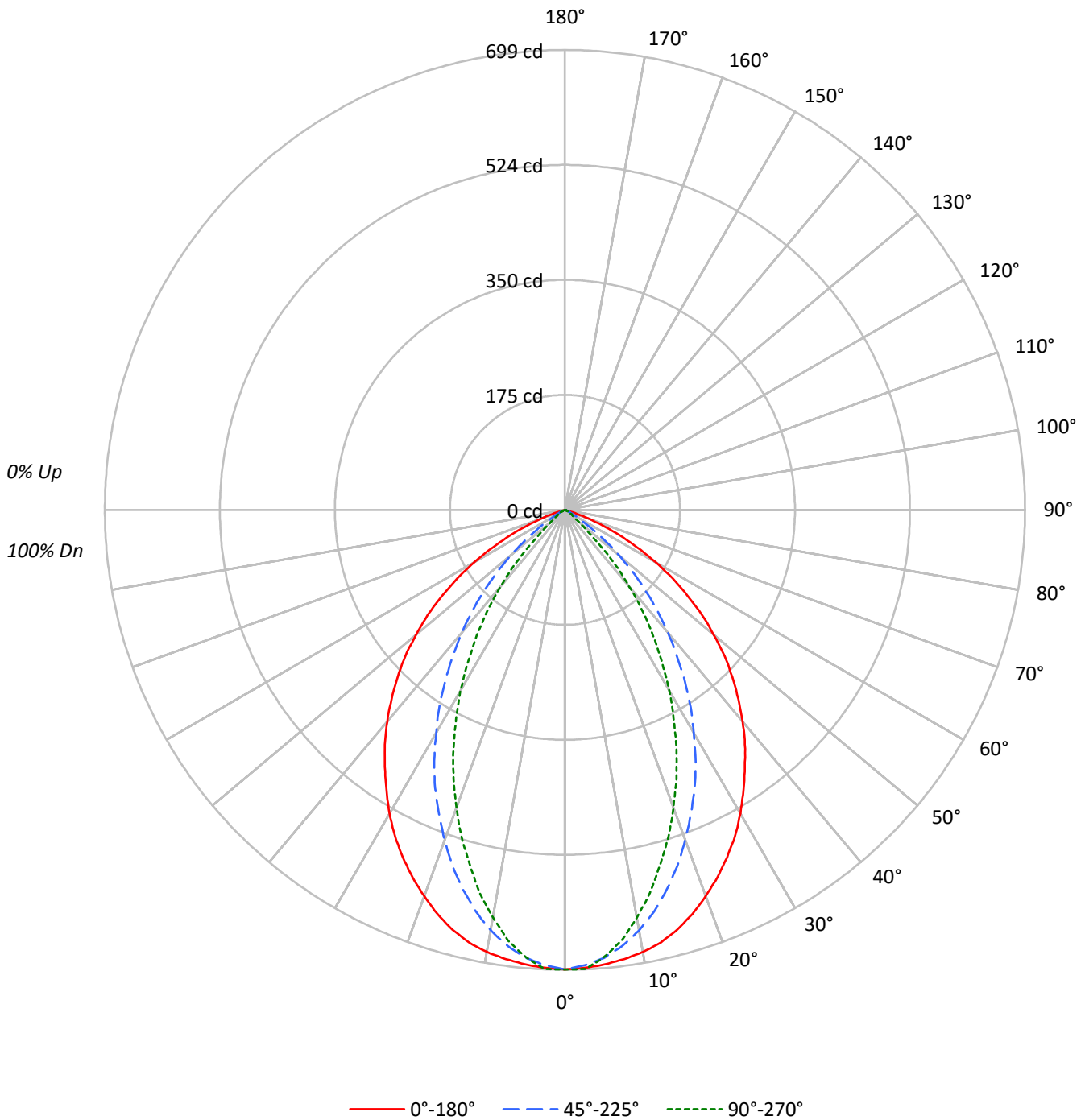
Lumens per Lamp: N/A
Luminaire Lumens: 912.3 lumens
Efficiency: N/A
Efficacy: 38.8 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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: P1060975

CATALOG NUMBER: S124RDR-H795D850-X4F0-XX-UDD-BVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1060975

CATALOG NUMBER: S124RDR-H795D850-X4F0-XX-UDD-BVL-B

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91																												
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82																												
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74																												
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66																												
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60																												
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55																												
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50																												
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46																												
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42																												
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6017	6017	6017
5°	5995	5908	5900
10°	5968	5677	5500
15°	5887	5328	4977
20°	5727	4894	4413
25°	5535	4432	3808
30°	5301	3885	3152
35°	5010	3332	2451
40°	4721	2735	1714
45°	4377	2103	849
50°	3949	1420	284
55°	3411	728	197
60°	2730	260	140
65°	1873	145	61
70°	838	76	50
75°	0	33	33
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4377 cd/sqm



TEST NUMBER: P1060975

CATALOG NUMBER: S124RDR-H795D850-X4F0-XX-UDD-BVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	7.1
10°-20°	169.1	18.5
20°-30°	218.9	24.0
30°-40°	208.0	22.8
40°-50°	147.3	16.1
50°-60°	75.6	8.3
60°-70°	26.4	2.9
70°-80°	2.3	0.2
80°-90°	0.0	0.0
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°	452.6	49.6
0°-40°	660.6	72.4
0°-60°	883.6	96.9
0°-90°	912.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	912.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	699	699	699	699	699	
5°	694	695	684	684	682	66
15°	660	640	598	569	558	186
25°	583	537	466	417	401	268
35°	477	407	317	255	233	298
45°	359	277	173	99	70	277
55°	227	149	48	14	13	203
65°	92	44	7	4	3	91
75°	0	1	1	1	1	7
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P1060975

CATALOG NUMBER: S124RDR-H795D850-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	698.7	698.7	698.7	698.7	698.7
2.5°	696.7	698.7	692.6	697.7	698.7
5°	693.6	694.6	683.5	683.5	682.5
7.5°	688.6	686.6	668.4	661.3	660.3
10°	682.5	675.5	649.2	634.1	629.0
12.5°	673.4	660.3	625.0	602.8	596.7
15°	660.3	640.1	597.7	569.4	558.3
17.5°	644.2	617.9	567.4	533.1	522.0
20°	625.0	591.7	534.1	495.7	481.6
22.5°	604.8	566.4	499.8	456.4	442.2
25°	582.6	537.1	466.5	417.0	400.8
27.5°	559.3	505.8	430.1	378.6	357.4
30°	533.1	474.5	390.7	337.2	317.0
32.5°	504.8	440.2	355.4	297.8	273.6
35°	476.6	406.9	317.0	255.4	233.2
37.5°	449.3	375.6	278.7	214.0	192.8
40°	420.0	341.3	243.3	176.7	152.5
42.5°	389.7	307.9	207.0	138.3	112.1
45°	359.4	276.6	172.7	98.9	69.7
47.5°	329.1	243.3	139.3	62.6	37.4
50°	294.8	211.0	106.0	33.3	21.2
52.5°	262.5	180.7	75.7	19.2	16.2
55°	227.2	149.4	48.5	14.1	13.1
57.5°	193.9	119.1	27.3	11.1	10.1
60°	158.5	91.9	15.1	9.1	8.1
62.5°	123.2	66.6	10.1	6.1	5.0
65°	91.9	44.4	7.1	4.0	3.0
67.5°	60.6	25.2	5.0	2.0	2.0
70°	33.3	12.1	3.0	2.0	2.0
72.5°	12.1	4.0	2.0	1.0	1.0
75°	0.0	1.0	1.0	1.0	1.0
77.5°	0.0	0.0	0.0	0.0	1.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060975
 CATALOG NUMBER: S124RDR-H795D850-X4F0-XX-UDD-BVL-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	14.76	16.02	15.13	16.33	16.65	0.00	0.00	0.00	0.00	0.00
	3H	15.04	16.14	15.42	16.48	16.84	0.00	0.00	0.00	0.00	0.00
	4H	14.96	15.99	15.37	16.34	16.72	0.00	0.00	0.00	0.00	0.00
	6H	14.88	15.82	15.29	16.19	16.58	0.00	0.00	0.00	0.00	0.00
	8H	14.83	15.72	15.26	16.11	16.51	0.00	0.00	0.00	0.00	0.00
	12H	14.78	15.63	15.22	16.01	16.44	0.00	0.00	0.00	0.00	0.00
4H	2H	14.54	15.56	14.94	15.91	16.30	0.00	0.00	0.00	0.00	0.00
	3H	14.82	15.65	15.23	16.05	16.46	0.00	0.00	0.00	0.00	0.00
	4H	14.73	15.46	15.16	15.88	16.33	0.00	0.00	0.00	0.00	0.00
	6H	14.64	15.27	15.10	15.72	16.19	0.00	0.00	0.00	0.00	0.00
	8H	14.58	15.17	15.05	15.61	16.09	0.00	0.00	0.00	0.00	0.00
	12H	14.53	15.04	15.01	15.53	16.00	0.00	0.00	0.00	0.00	0.00
8H	4H	14.58	15.17	15.05	15.61	16.09	0.00	0.00	0.00	0.00	0.00
	6H	14.47	14.95	14.97	15.44	15.93	0.00	0.00	0.00	0.00	0.00
	8H	14.40	14.83	14.93	15.35	15.84	0.00	0.00	0.00	0.00	0.00
	12H	14.35	14.73	14.87	15.23	15.80	0.00	0.00	0.00	0.00	0.00
12H	4H	14.53	15.04	15.01	15.53	16.00	0.00	0.00	0.00	0.00	0.00
	6H	14.40	14.83	14.93	15.35	15.84	0.00	0.00	0.00	0.00	0.00
	8H	14.35	14.73	14.87	15.23	15.80	0.00	0.00	0.00	0.00	0.00