

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: P1057905

Luminaire Tested: S122RDR-S290D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057905
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-S290D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

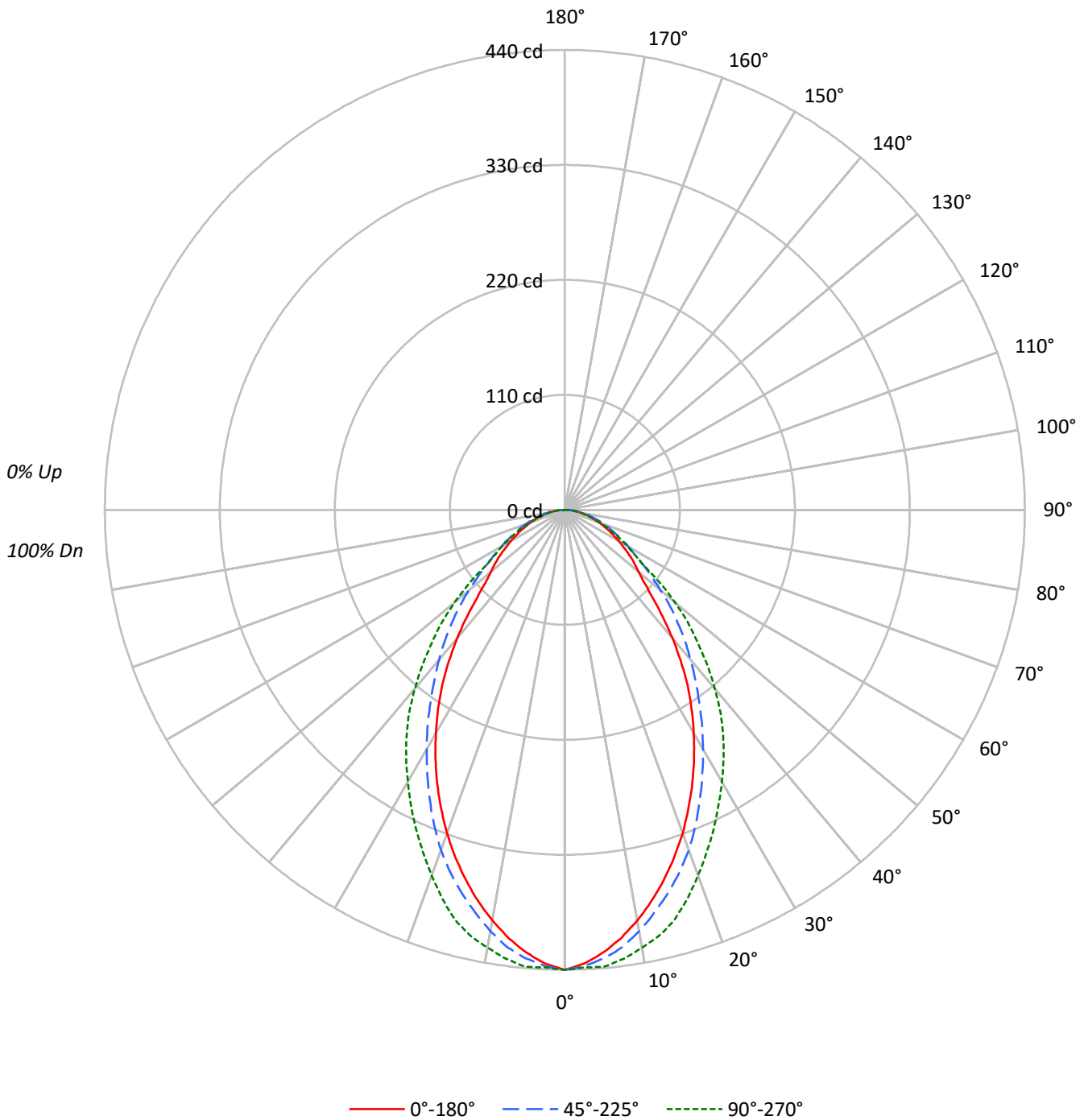
Lumens per Lamp: N/A
Luminaire Lumens: 717.5 lumens
Efficiency: N/A
Efficacy: 57.4 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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: P1057905

CATALOG NUMBER: S122RDR-S290D850-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1057905

CATALOG NUMBER: S122RDR-S290D850-X4F0-XX-UDD-WVL-W

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	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	40	35	46	39	35	45	39	35	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8121	8121	8121
5°	7872	7976	8126
10°	7474	7669	7971
15°	6998	7259	7756
20°	6468	6802	7313
25°	5878	6224	6859
30°	5254	5627	6403
35°	4604	5041	5949
40°	3854	4502	5369
45°	3087	3990	4692
50°	2650	3436	3939
55°	2419	2924	2908
60°	2200	2583	2532
65°	2004	2314	2209
70°	1840	2120	1964
75°	1718	1953	1718
80°	1605	1806	1509
85°	1609	1905	1313

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4692 cd/sqm



TEST NUMBER: P1057905

CATALOG NUMBER: S122RDR-S290D850-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.6	5.7
10°-20°	107.6	15.0
20°-30°	141.9	19.8
30°-40°	142.9	19.9
40°-50°	116.3	16.2
50°-60°	79.3	11.0
60°-70°	51.5	7.2
70°-80°	28.3	3.9
80°-90°	9.2	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°	290.1	40.4
0°-40°	432.9	60.3
0°-60°	628.5	87.6
0°-90°	717.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	717.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	440	440	440	440	440	
5°	425	433	431	434	439	40
15°	366	376	380	396	406	103
25°	289	298	306	319	337	132
35°	204	215	224	243	264	127
45°	118	133	153	166	180	93
55°	75	83	91	91	90	67
65°	46	54	53	50	51	46
75°	24	30	27	25	24	26
85°	8	10	9	7	6	8
90°	0	0	0	0	0	



TEST NUMBER: P1057905

CATALOG NUMBER: S122RDR-S290D850-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	440.1	440.1	440.1	440.1	440.1
2.5°	434.4	441.5	436.8	437.3	438.2
5°	425.0	433.0	430.6	434.4	438.7
7.5°	413.1	421.2	422.1	427.8	433.0
10°	398.9	407.9	409.3	417.9	425.4
12.5°	383.3	393.3	395.1	407.5	417.4
15°	366.3	375.7	380.0	395.6	406.0
17.5°	348.3	357.3	363.9	378.1	389.9
20°	329.4	337.9	346.4	359.2	372.4
22.5°	309.0	318.5	326.5	339.3	354.5
25°	288.7	298.1	305.7	319.4	336.9
27.5°	267.8	277.3	284.9	299.6	318.5
30°	246.6	256.5	264.1	280.6	300.5
32.5°	225.7	235.7	244.2	261.7	282.5
35°	204.4	214.8	223.8	243.2	264.1
37.5°	181.7	193.6	204.9	224.3	244.7
40°	160.0	173.2	186.9	204.9	222.9
42.5°	138.2	152.9	169.9	185.0	201.6
45°	118.3	133.0	152.9	166.1	179.8
47.5°	102.7	115.0	136.3	147.2	159.5
50°	92.3	100.8	119.7	128.2	137.2
52.5°	83.8	90.9	104.1	109.8	114.5
55°	75.2	82.8	90.9	91.3	90.4
57.5°	66.7	75.2	79.5	76.2	78.1
60°	59.6	68.1	70.0	66.7	68.6
62.5°	52.1	61.5	61.5	58.2	59.2
65°	45.9	54.4	53.0	50.2	50.6
67.5°	39.8	48.3	45.9	43.1	43.1
70°	34.1	42.1	39.3	36.4	36.4
72.5°	28.9	35.5	33.6	30.3	29.8
75°	24.1	29.8	27.4	24.6	24.1
77.5°	19.4	24.1	22.2	19.9	18.9
80°	15.1	19.4	17.0	15.1	14.2
82.5°	11.4	14.7	12.8	10.9	9.9
85°	7.6	9.9	9.0	7.1	6.2
87.5°	3.8	6.6	5.7	4.7	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)