

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: P1059115

Luminaire Tested: S123RDR-S1165D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059115
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D850-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

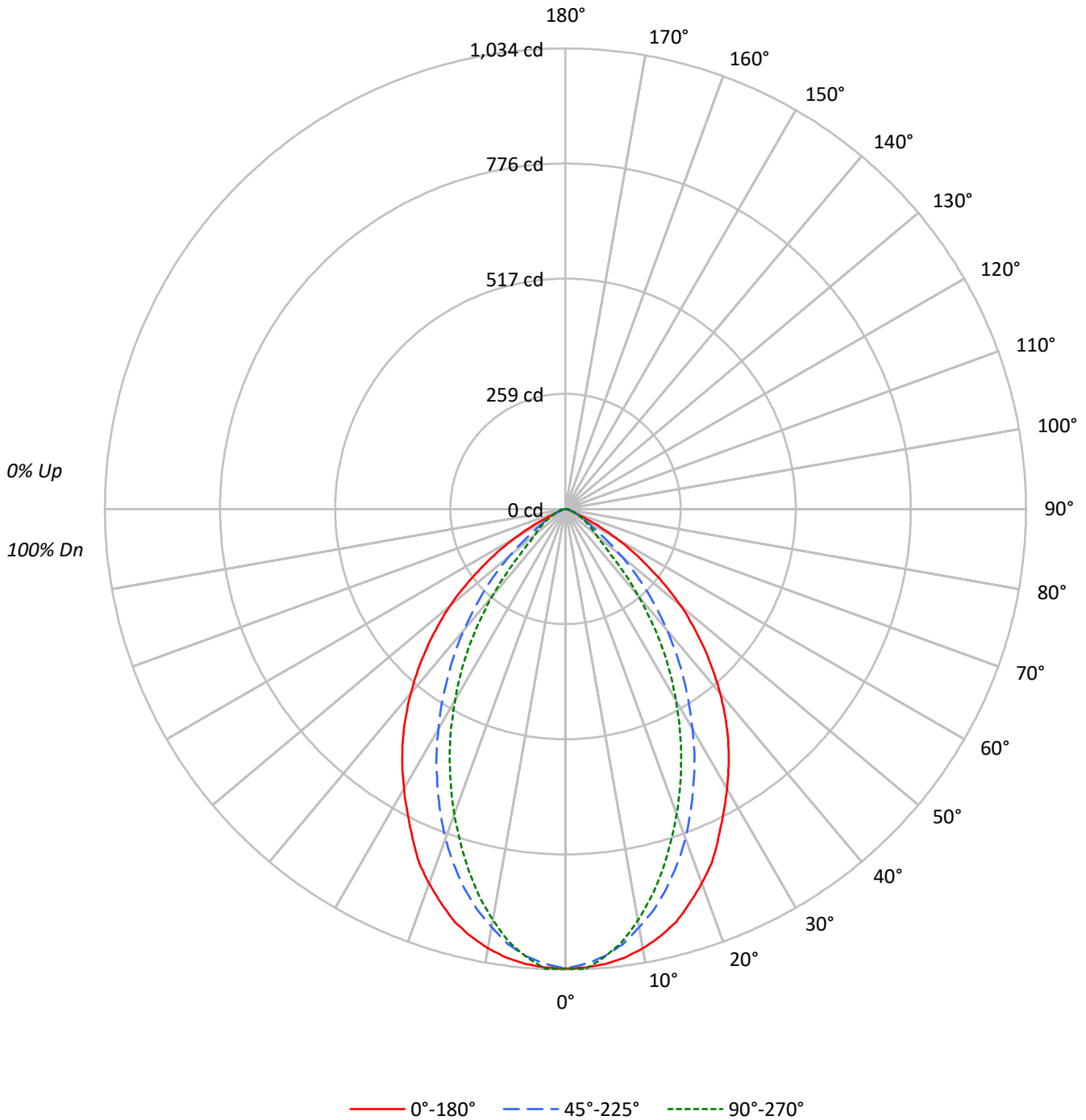
Lumens per Lamp: N/A
Luminaire Lumens: 1332.2 lumens
Efficiency: N/A
Efficacy: 31.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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

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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73				73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66				66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55				55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42				42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12117	12117	12117
5°	12088	11882	11900
10°	11943	11372	11181
15°	11670	10700	10214
20°	11178	9841	9122
25°	10535	8817	7968
30°	9833	7733	6714
35°	9137	6595	5404
40°	8276	5436	3918
45°	7295	4218	2361
50°	6187	2947	1606
55°	4709	1767	1341
60°	3077	1125	1050
65°	1286	845	845
70°	439	604	659
75°	363	436	508
80°	216	325	433
85°	216	216	431

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7295 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.3	7.2
10°-20°	249.4	18.7
20°-30°	319.9	24.0
30°-40°	300.1	22.5
40°-50°	209.4	15.7
50°-60°	108.3	8.1
60°-70°	37.0	2.8
70°-80°	10.6	0.8
80°-90°	2.2	0.2
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°	664.6	49.9
0°-40°	964.7	72.4
0°-60°	1282.4	96.3
0°-90°	1332.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1332.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1032	1032	1032	1032	1032	
5°	1026	1024	1008	1013	1010	97
15°	960	936	880	851	840	269
25°	813	762	680	634	615	374
35°	637	559	460	401	377	397
45°	439	359	254	176	142	338
55°	230	172	86	67	66	207
65°	46	40	30	29	30	55
75°	8	8	10	11	11	8
85°	2	2	2	2	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1031.9	1031.9	1031.9	1031.9	1031.9
2.5°	1030.3	1031.9	1022.3	1031.9	1033.5
5°	1025.5	1023.9	1008.0	1012.8	1009.6
7.5°	1016.0	1011.2	985.6	979.2	979.2
10°	1001.6	992.0	953.7	942.5	937.7
12.5°	982.4	969.6	920.1	899.3	891.4
15°	960.0	936.1	880.2	851.4	840.2
17.5°	928.1	896.1	835.4	801.9	784.3
20°	894.5	854.6	787.5	747.6	730.0
22.5°	859.4	811.5	734.8	691.7	672.5
25°	813.1	762.0	680.5	634.2	615.0
27.5°	768.4	714.0	627.8	575.1	555.9
30°	725.2	661.3	570.3	519.2	495.2
32.5°	682.1	610.2	516.0	460.1	437.7
35°	637.4	559.1	460.1	400.9	377.0
37.5°	589.4	509.6	407.3	343.4	314.7
40°	539.9	456.9	354.6	282.7	255.6
42.5°	490.4	408.9	301.9	228.4	196.5
45°	439.3	359.4	254.0	175.7	142.2
47.5°	388.2	309.9	207.7	127.8	107.0
50°	338.7	263.6	161.3	94.2	87.9
52.5°	284.3	218.8	121.4	78.3	76.7
55°	230.0	172.5	86.3	67.1	65.5
57.5°	182.1	134.2	62.3	55.9	54.3
60°	131.0	95.8	47.9	46.3	44.7
62.5°	86.3	65.5	38.3	36.7	36.7
65°	46.3	39.9	30.4	28.8	30.4
67.5°	19.2	22.4	22.4	24.0	24.0
70°	12.8	14.4	17.6	19.2	19.2
72.5°	9.6	11.2	12.8	14.4	14.4
75°	8.0	8.0	9.6	11.2	11.2
77.5°	4.8	6.4	6.4	8.0	9.6
80°	3.2	4.8	4.8	6.4	6.4
82.5°	1.6	3.2	3.2	4.8	4.8
85°	1.6	1.6	1.6	1.6	3.2
87.5°	0.0	0.0	0.0	0.0	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)