

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: P1059113

Luminaire Tested: S123RDR-S1165D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059113
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

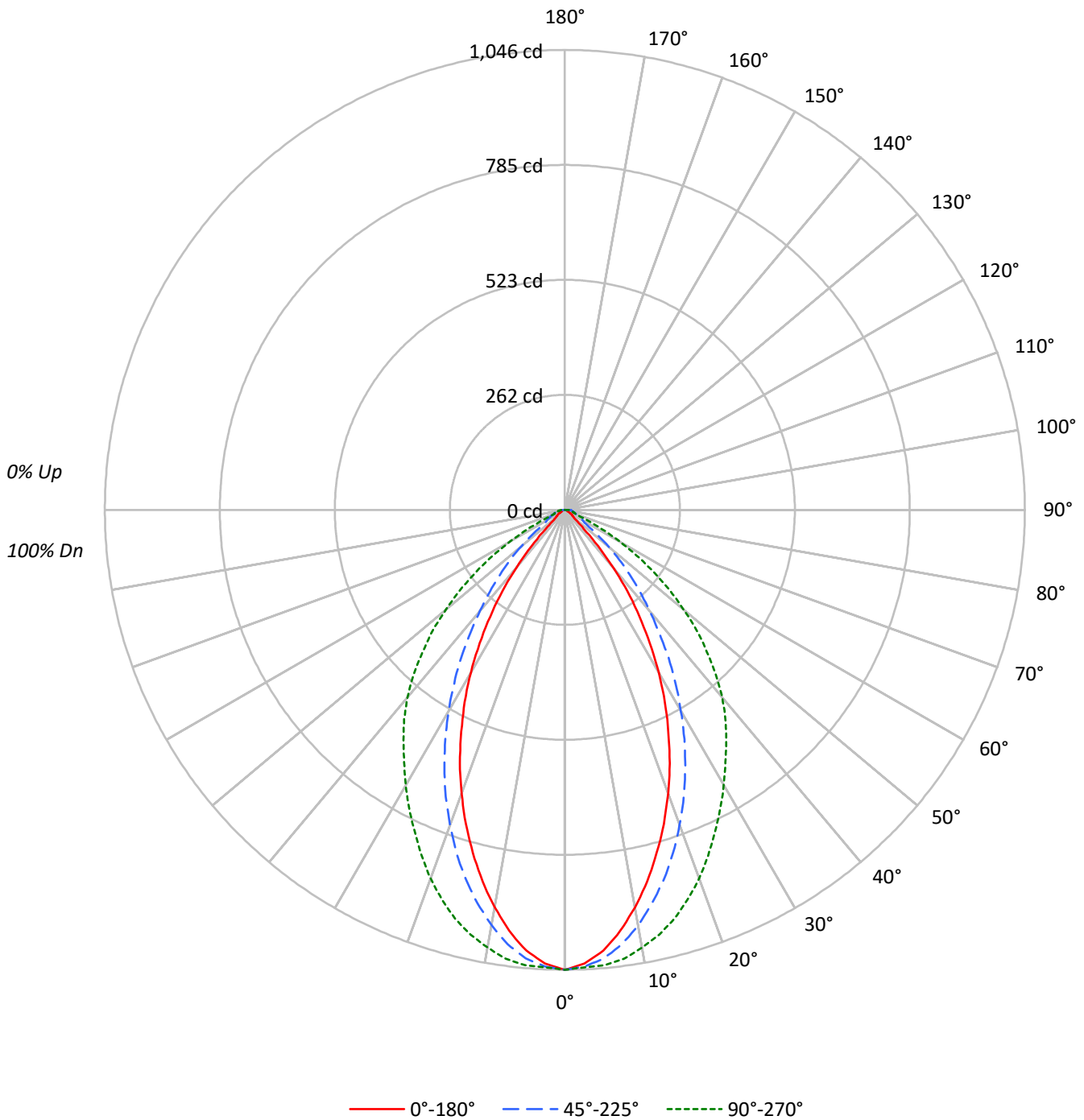
Lumens per Lamp: N/A
Luminaire Lumens: 1256.5 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81				81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73				73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66				66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50				50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46				46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40				40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12283	12283	12283
5°	11858	12065	12254
10°	10947	11443	12052
15°	9819	10578	11706
20°	8575	9533	11153
25°	7212	8393	10465
30°	5790	7156	9802
35°	4242	5893	9171
40°	2623	4585	8532
45°	1010	3452	7596
50°	497	2368	6429
55°	393	1310	5042
60°	263	1090	3379
65°	222	978	1512
70°	220	879	879
75°	290	944	871
80°	433	1190	974
85°	647	1940	1293

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7596 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	7.6
10°-20°	245.6	19.5
20°-30°	304.7	24.3
30°-40°	273.0	21.7
40°-50°	179.5	14.3
50°-60°	89.9	7.2
60°-70°	35.5	2.8
70°-80°	19.9	1.6
80°-90°	12.5	1.0
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°	646.2	51.4
0°-40°	919.2	73.2
0°-60°	1188.6	94.6
0°-90°	1256.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1256.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1046	1046	1046	1046	1046	
5°	1006	1022	1024	1030	1040	93
15°	808	833	870	929	963	225
25°	557	592	648	739	808	254
35°	296	336	411	537	640	184
45°	61	101	208	350	457	58
55°	19	22	64	173	246	17
65°	8	22	35	45	54	8
75°	6	21	21	19	19	7
85°	5	14	14	14	10	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1046.0	1046.0	1046.0	1046.0	1046.0
2.5°	1033.2	1047.6	1039.6	1039.6	1041.2
5°	1006.0	1022.0	1023.6	1030.0	1039.6
7.5°	966.1	986.8	996.4	1015.6	1030.0
10°	918.1	940.5	959.7	993.2	1010.8
12.5°	865.3	887.7	916.5	962.9	990.0
15°	807.7	833.3	870.1	929.3	962.9
17.5°	748.5	774.1	818.9	886.1	929.3
20°	686.2	714.9	762.9	839.7	892.5
22.5°	623.8	655.8	706.9	790.1	850.9
25°	556.6	591.8	647.8	738.9	807.7
27.5°	492.6	529.4	588.6	687.8	766.1
30°	427.0	463.8	527.8	635.0	722.9
32.5°	359.9	401.5	468.6	585.4	679.8
35°	295.9	335.9	411.1	537.4	639.8
37.5°	233.5	273.5	351.9	491.0	599.8
40°	171.1	212.7	299.1	446.2	556.6
42.5°	112.0	155.1	252.7	401.5	508.6
45°	60.8	100.8	207.9	350.3	457.4
47.5°	33.6	54.4	167.9	302.3	407.9
50°	27.2	30.4	129.6	257.5	351.9
52.5°	22.4	25.6	92.8	214.3	300.7
55°	19.2	22.4	64.0	172.7	246.3
57.5°	16.0	19.2	51.2	132.8	193.5
60°	11.2	19.2	46.4	97.6	143.9
62.5°	9.6	19.2	40.0	67.2	96.0
65°	8.0	22.4	35.2	44.8	54.4
67.5°	6.4	22.4	30.4	28.8	28.8
70°	6.4	22.4	25.6	24.0	25.6
72.5°	6.4	24.0	24.0	22.4	22.4
75°	6.4	20.8	20.8	19.2	19.2
77.5°	6.4	19.2	19.2	17.6	17.6
80°	6.4	17.6	17.6	16.0	14.4
82.5°	6.4	16.0	16.0	14.4	12.8
85°	4.8	14.4	14.4	14.4	9.6
87.5°	4.8	12.8	14.4	12.8	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)