

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: P1059104

Luminaire Tested: S123RDR-S1165D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059104
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-S1165D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

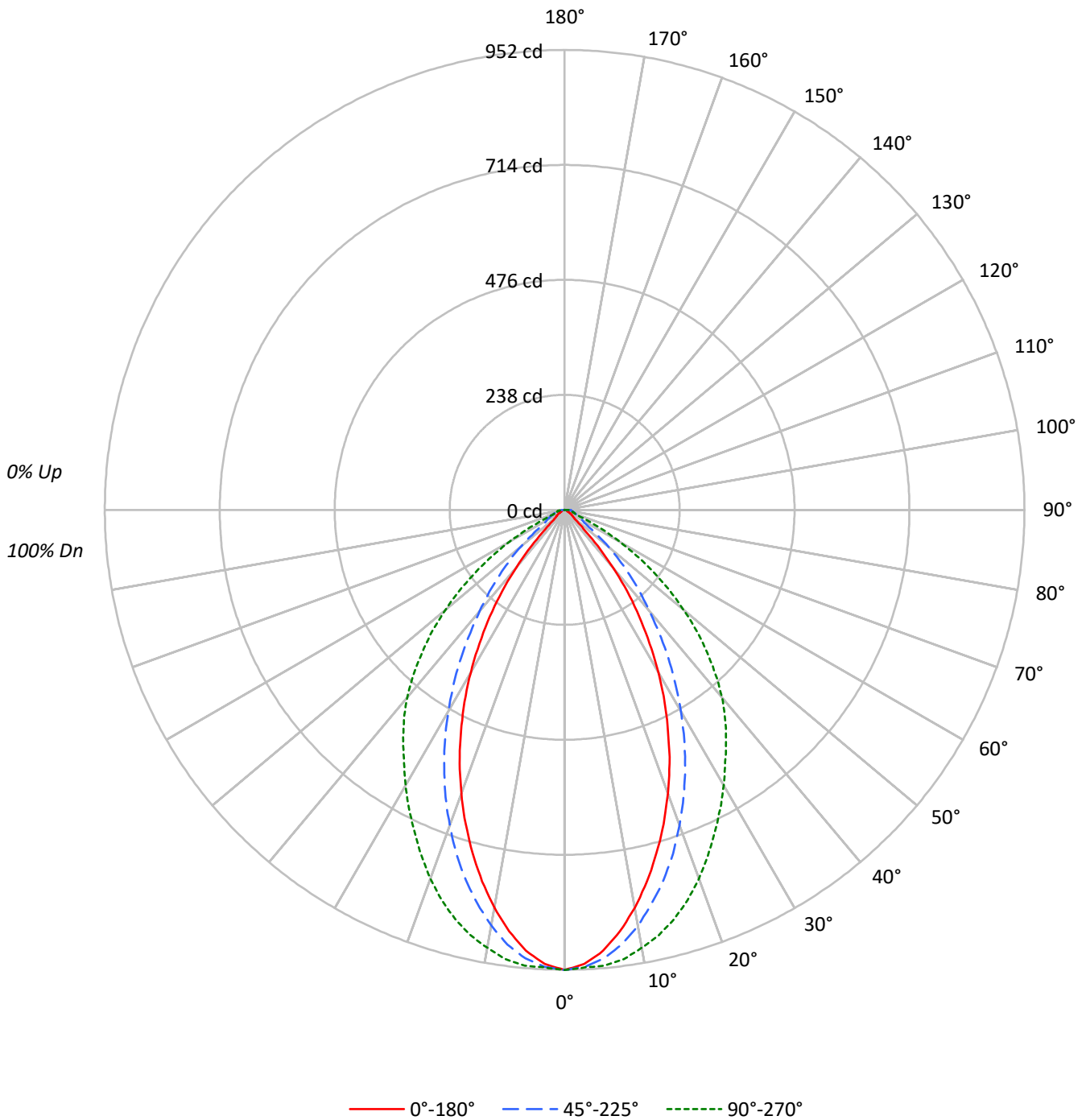
Lumens per Lamp: N/A
Luminaire Lumens: 1144.2 lumens
Efficiency: N/A
Efficacy: 27.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	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	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11185	11185	11185
5°	10798	10987	11159
10°	9968	10420	10976
15°	8941	9632	10659
20°	7808	8681	10156
25°	6566	7643	9529
30°	5273	6516	8926
35°	3862	5366	8351
40°	2388	4176	7769
45°	918	3144	6917
50°	453	2156	5853
55°	358	1194	4592
60°	240	991	3079
65°	203	889	1375
70°	199	800	800
75°	263	857	794
80°	392	1082	886
85°	593	1765	1172

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6917 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.3	7.6
10°-20°	223.6	19.5
20°-30°	277.5	24.3
30°-40°	248.6	21.7
40°-50°	163.4	14.3
50°-60°	81.9	7.2
60°-70°	32.3	2.8
70°-80°	18.1	1.6
80°-90°	11.4	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°	588.4	51.4
0°-40°	837.0	73.2
0°-60°	1082.4	94.6
0°-90°	1144.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1144.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	916	931	932	938	947	85
15°	736	759	792	846	877	205
25°	507	539	590	673	736	232
35°	269	306	374	489	583	167
45°	55	92	189	319	416	52
55°	18	20	58	157	224	16
65°	7	20	32	41	50	7
75°	6	19	19	18	18	6
85°	4	13	13	13	9	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	952.5	952.5	952.5	952.5	952.5
2.5°	940.9	954.0	946.7	946.7	948.1
5°	916.1	930.7	932.1	938.0	946.7
7.5°	879.7	898.6	907.4	924.8	938.0
10°	836.0	856.4	873.9	904.5	920.5
12.5°	787.9	808.3	834.5	876.8	901.5
15°	735.5	758.8	792.3	846.2	876.8
17.5°	681.6	704.9	745.7	806.9	846.2
20°	624.8	651.0	694.7	764.6	812.7
22.5°	568.0	597.1	643.8	719.5	774.8
25°	506.8	538.9	589.9	672.9	735.5
27.5°	448.6	482.1	536.0	626.3	697.6
30°	388.9	422.4	480.6	578.2	658.3
32.5°	327.7	365.6	426.7	533.1	619.0
35°	269.4	305.9	374.3	489.4	582.6
37.5°	212.6	249.1	320.4	447.1	546.2
40°	155.8	193.7	272.4	406.3	506.8
42.5°	102.0	141.3	230.1	365.6	463.2
45°	55.3	91.8	189.3	319.0	416.5
47.5°	30.6	49.5	152.9	275.3	371.4
50°	24.8	27.7	118.0	234.5	320.4
52.5°	20.4	23.3	84.5	195.2	273.8
55°	17.5	20.4	58.3	157.3	224.3
57.5°	14.6	17.5	46.6	120.9	176.2
60°	10.2	17.5	42.2	88.8	131.1
62.5°	8.7	17.5	36.4	61.2	87.4
65°	7.3	20.4	32.0	40.8	49.5
67.5°	5.8	20.4	27.7	26.2	26.2
70°	5.8	20.4	23.3	21.8	23.3
72.5°	5.8	21.8	21.8	20.4	20.4
75°	5.8	18.9	18.9	17.5	17.5
77.5°	5.8	17.5	17.5	16.0	16.0
80°	5.8	16.0	16.0	14.6	13.1
82.5°	5.8	14.6	14.6	13.1	11.7
85°	4.4	13.1	13.1	13.1	8.7
87.5°	4.4	11.7	13.1	11.7	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)