

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: P1060229

Luminaire Tested: S124RDR-S1020D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060229
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D835-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

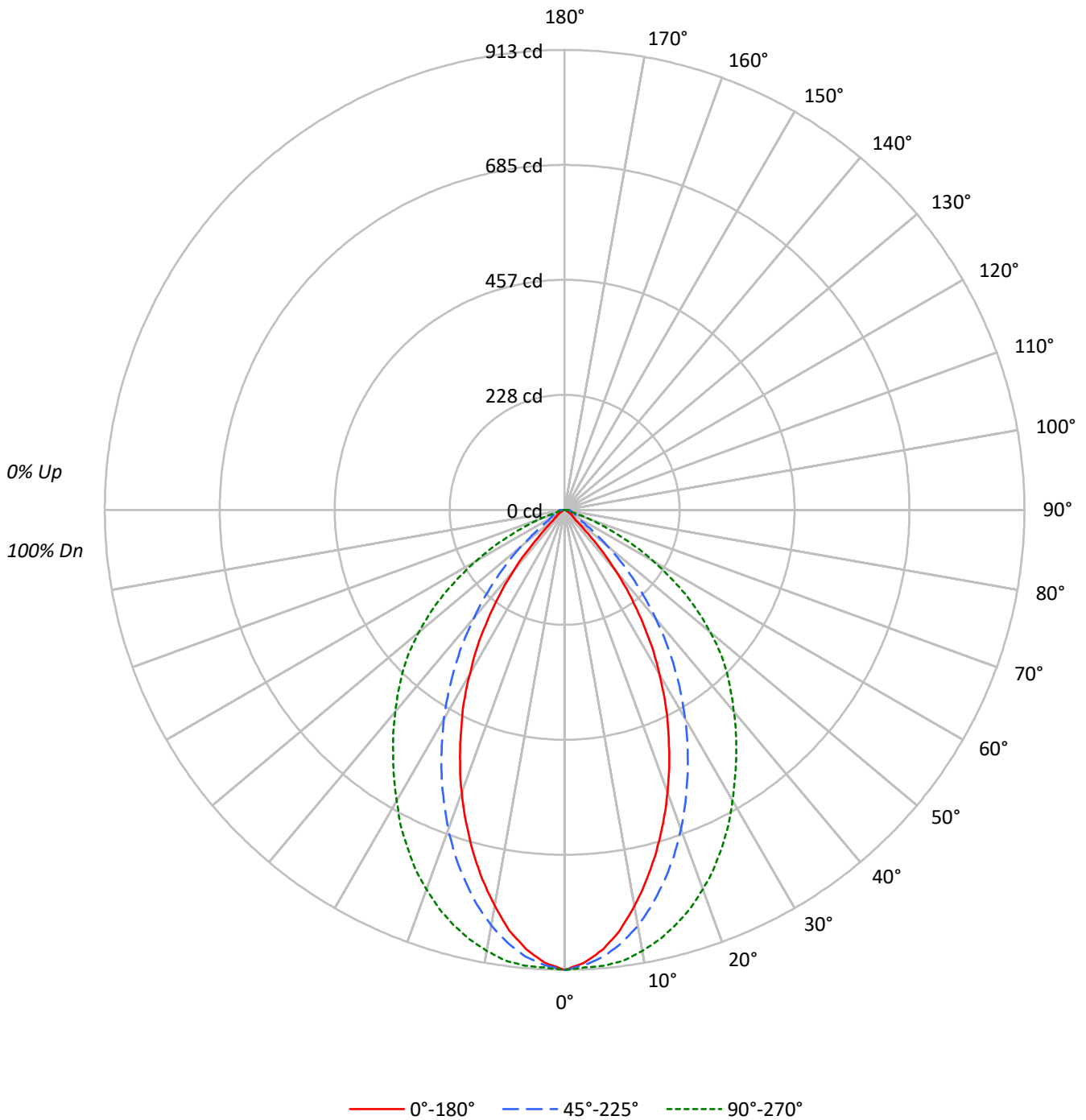
Lumens per Lamp: N/A
Luminaire Lumens: 1146.1 lumens
Efficiency: N/A
Efficacy: 32.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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				
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	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7864	7864	7864
5°	7570	7695	7851
10°	6980	7329	7773
15°	6265	6804	7602
20°	5475	6185	7348
25°	4631	5493	7021
30°	3740	4763	6626
35°	2785	3980	6243
40°	1767	3154	5873
45°	708	2313	5539
50°	308	1475	5056
55°	236	763	4412
60°	167	520	3500
65°	122	518	2390
70°	121	456	1095
75°	160	482	443
80°	238	541	481
85°	474	958	721

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5539 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	7.3
10°-20°	215.6	18.8
20°-30°	272.3	23.8
30°-40°	250.1	21.8
40°-50°	170.5	14.9
50°-60°	92.5	8.1
60°-70°	39.2	3.4
70°-80°	13.6	1.2
80°-90°	8.6	0.8
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°	571.5	49.9
0°-40°	821.6	71.7
0°-60°	1084.7	94.6
0°-90°	1146.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1146.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	913	913	913	913	913	
5°	876	889	890	897	908	81
15°	703	726	763	818	853	196
25°	487	519	578	668	739	223
35°	265	300	379	497	594	165
45°	58	93	190	336	455	53
55°	16	17	51	185	294	14
65°	6	7	25	58	117	6
75°	5	13	14	13	13	5
85°	5	10	10	10	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	913.2	913.2	913.2	913.2	913.2
2.5°	899.9	910.7	904.7	907.1	909.5
5°	875.7	889.0	890.2	897.4	908.3
7.5°	841.8	857.5	867.2	885.3	902.3
10°	798.3	817.6	838.2	867.2	889.0
12.5°	752.3	772.9	803.1	844.2	873.2
15°	702.7	725.7	763.2	817.6	852.7
17.5°	650.7	676.1	720.9	785.0	829.7
20°	597.5	625.3	674.9	747.5	801.9
22.5°	543.1	572.1	626.5	708.8	772.9
25°	487.4	518.9	578.1	667.6	739.0
27.5°	434.2	463.2	528.5	626.5	705.1
30°	376.1	408.8	479.0	584.2	666.4
32.5°	322.9	354.4	428.2	540.6	630.1
35°	264.9	300.0	378.6	497.1	593.9
37.5°	210.5	244.3	330.2	456.0	558.8
40°	157.2	192.3	280.6	414.9	522.5
42.5°	105.2	142.7	233.4	372.5	488.6
45°	58.1	93.1	189.9	336.2	454.8
47.5°	30.2	50.8	148.8	300.0	418.5
50°	23.0	27.8	110.1	260.0	377.4
52.5°	19.4	20.6	75.0	220.1	336.2
55°	15.7	16.9	50.8	185.1	293.9
57.5°	12.1	13.3	36.3	151.2	246.7
60°	9.7	10.9	30.2	116.1	203.2
62.5°	7.3	8.5	29.0	85.9	159.7
65°	6.0	7.3	25.4	58.1	117.3
67.5°	4.8	7.3	21.8	37.5	78.6
70°	4.8	9.7	18.1	24.2	43.5
72.5°	4.8	10.9	15.7	15.7	15.7
75°	4.8	13.3	14.5	13.3	13.3
77.5°	4.8	12.1	12.1	12.1	12.1
80°	4.8	10.9	10.9	10.9	9.7
82.5°	4.8	9.7	10.9	10.9	8.5
85°	4.8	9.7	9.7	9.7	7.3
87.5°	3.6	9.7	9.7	9.7	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)