

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: P1060244

Luminaire Tested: S124RDR-S1020D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060244
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D840-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

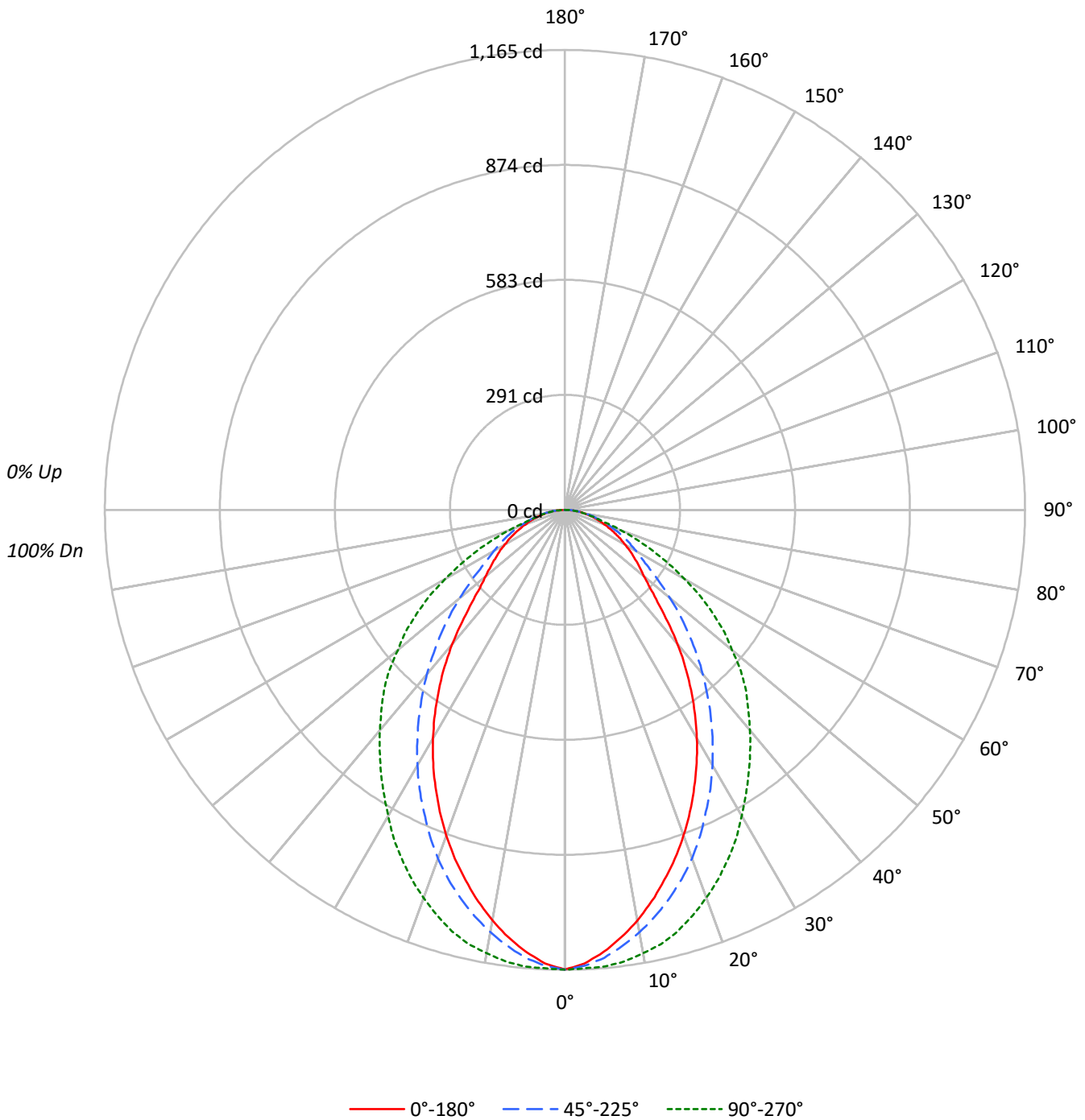
Lumens per Lamp: N/A
Luminaire Lumens: 2120.3 lumens
Efficiency: N/A
Efficacy: 60.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10029	10029	10029
5°	9718	9846	10035
10°	9234	9500	9970
15°	8663	9087	9849
20°	8043	8614	9587
25°	7365	8027	9279
30°	6640	7429	8897
35°	5852	6776	8534
40°	4981	6106	8192
45°	4043	5396	7894
50°	3499	4645	7392
55°	3244	3941	6855
60°	3028	3553	6012
65°	2836	3333	5000
70°	2644	3074	3782
75°	2519	2845	2722
80°	2360	2603	2301
85°	2174	2411	1808

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7894 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	5.1
10°-20°	289.0	13.6
20°-30°	394.6	18.6
30°-40°	413.4	19.5
40°-50°	357.9	16.9
50°-60°	268.9	12.7
60°-70°	173.4	8.2
70°-80°	88.9	4.2
80°-90°	26.5	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°	791.2	37.3
0°-40°	1204.6	56.8
0°-60°	1831.4	86.4
0°-90°	2120.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2120.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1165	1165	1165	1165	1165	
5°	1124	1141	1139	1148	1161	105
15°	972	996	1019	1066	1105	272
25°	775	804	845	911	977	356
35°	557	588	645	730	812	347
45°	332	366	443	552	648	262
55°	216	223	262	375	457	194
65°	139	142	164	198	245	138
75°	76	84	86	84	82	80
85°	22	26	24	23	18	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1164.6	1164.6	1164.6	1164.6	1164.6
2.5°	1150.0	1164.6	1156.1	1158.5	1162.2
5°	1124.3	1141.4	1139.0	1147.5	1160.9
7.5°	1092.6	1110.9	1114.6	1134.1	1153.6
10°	1056.0	1076.7	1086.5	1115.8	1140.2
12.5°	1015.7	1037.6	1054.7	1091.4	1126.8
15°	971.7	996.1	1019.3	1065.7	1104.8
17.5°	926.6	951.0	981.5	1032.8	1076.7
20°	877.7	904.6	940.0	993.7	1046.2
22.5°	827.7	855.8	893.6	952.2	1013.2
25°	775.2	804.5	844.8	910.7	976.6
27.5°	722.7	752.0	797.2	866.7	938.8
30°	667.8	698.3	747.1	822.8	894.8
32.5°	612.8	645.8	695.8	776.4	853.3
35°	556.7	588.4	644.6	730.0	811.8
37.5°	500.5	533.5	593.3	684.8	770.3
40°	443.1	477.3	543.2	639.7	728.8
42.5°	385.8	422.4	492.0	593.3	687.3
45°	332.0	366.2	443.1	551.8	648.2
47.5°	291.8	315.0	394.3	511.5	604.3
50°	261.2	273.5	346.7	467.6	551.8
52.5°	238.0	246.6	302.7	419.9	509.1
55°	216.1	223.4	262.5	374.8	456.6
57.5°	196.5	200.2	231.9	330.8	406.5
60°	175.8	179.5	206.3	283.2	349.1
62.5°	157.5	159.9	185.6	238.0	296.6
65°	139.2	141.6	163.6	197.8	245.4
67.5°	122.1	125.7	142.8	161.1	195.3
70°	105.0	112.3	122.1	130.6	150.2
72.5°	90.3	97.7	102.5	105.0	106.2
75°	75.7	84.2	85.5	84.2	81.8
77.5°	61.0	68.4	68.4	65.9	63.5
80°	47.6	53.7	52.5	50.1	46.4
82.5°	35.4	39.1	37.8	35.4	31.7
85°	22.0	25.6	24.4	23.2	18.3
87.5°	11.0	14.6	13.4	12.2	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)