

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: P1060221

Luminaire Tested: S124RDR-S1020D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060221
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

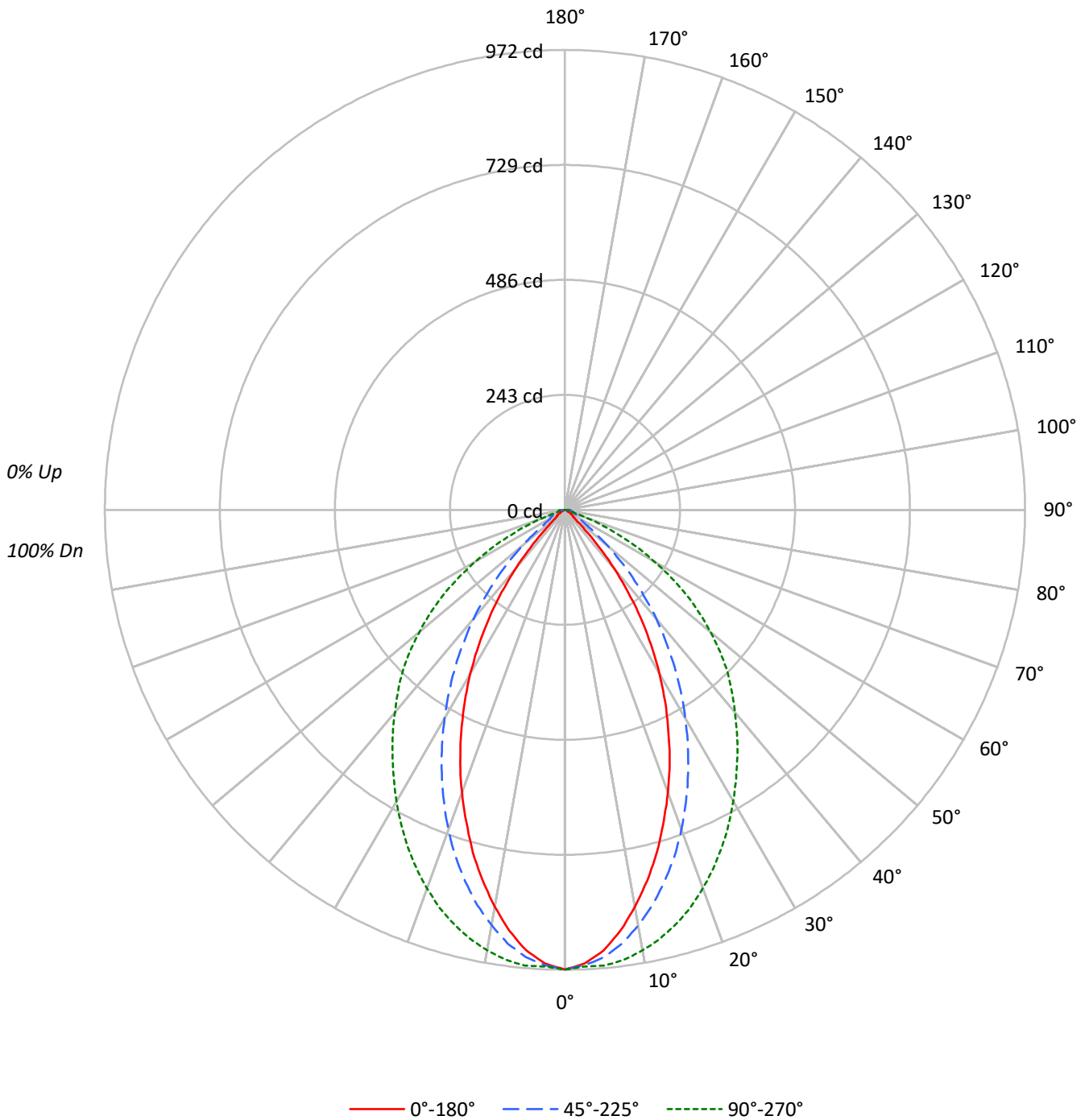
Lumens per Lamp: N/A
Luminaire Lumens: 1224.4 lumens
Efficiency: N/A
Efficacy: 35.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8366	8366	8366
5°	8082	8201	8358
10°	7447	7797	8265
15°	6689	7248	8081
20°	5830	6593	7805
25°	4919	5850	7464
30°	3968	5056	7075
35°	2937	4231	6676
40°	1820	3371	6280
45°	722	2458	5915
50°	320	1543	5377
55°	257	805	4708
60°	177	608	3751
65°	116	603	2580
70°	116	546	1206
75°	153	532	532
80°	228	620	620
85°	454	1235	899

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5915 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	7.3
10°-20°	230.0	18.8
20°-30°	290.3	23.7
30°-40°	266.3	21.8
40°-50°	181.4	14.8
50°-60°	98.8	8.1
60°-70°	42.8	3.5
70°-80°	15.6	1.3
80°-90°	10.0	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°	609.4	49.8
0°-40°	875.8	71.5
0°-60°	1156.0	94.4
0°-90°	1224.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1224.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	972	972	972	972	972	
5°	935	948	949	959	967	87
15°	750	776	813	871	906	209
25°	518	554	616	714	786	237
35°	279	320	402	530	635	173
45°	59	99	202	358	486	55
55°	17	18	54	197	314	15
65°	6	8	30	62	127	7
75°	5	15	16	16	16	5
85°	5	10	12	12	9	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	971.5	971.5	971.5	971.5	971.5
2.5°	960.1	971.5	963.5	965.8	965.8
5°	935.0	947.5	948.7	958.9	966.9
7.5°	897.4	915.6	924.7	945.2	958.9
10°	851.7	873.4	891.7	927.0	945.2
12.5°	802.7	827.8	855.2	901.9	928.1
15°	750.3	776.5	813.0	871.1	906.5
17.5°	692.1	724.0	768.5	838.1	881.4
20°	636.2	668.2	719.5	798.2	851.7
22.5°	578.1	611.2	668.2	756.0	819.8
25°	517.7	554.2	615.7	713.8	785.6
27.5°	458.4	497.1	562.1	669.3	749.1
30°	399.1	437.8	508.5	623.7	711.5
32.5°	338.6	378.6	455.0	575.8	672.7
35°	279.4	320.4	402.5	530.2	635.1
37.5°	218.9	262.3	350.0	485.7	597.5
40°	161.9	205.2	299.9	441.3	558.7
42.5°	108.3	151.7	248.6	397.9	522.2
45°	59.3	99.2	201.8	358.0	485.7
47.5°	31.9	54.7	156.2	319.3	444.7
50°	23.9	29.6	115.2	278.2	401.4
52.5°	20.5	22.8	79.8	234.9	358.0
55°	17.1	18.2	53.6	197.3	313.6
57.5°	13.7	14.8	39.9	159.6	265.7
60°	10.3	12.5	35.3	123.1	217.8
62.5°	8.0	10.3	33.1	90.1	172.2
65°	5.7	8.0	29.6	61.6	126.6
67.5°	5.7	9.1	25.1	39.9	85.5
70°	4.6	12.5	21.7	26.2	47.9
72.5°	4.6	13.7	18.2	18.2	18.2
75°	4.6	14.8	16.0	16.0	16.0
77.5°	4.6	13.7	14.8	13.7	13.7
80°	4.6	12.5	12.5	12.5	12.5
82.5°	4.6	11.4	12.5	12.5	10.3
85°	4.6	10.3	12.5	12.5	9.1
87.5°	3.4	10.3	11.4	11.4	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)