

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: P1055973

Luminaire Tested: S124R3DR-S1020D935-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055973
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S1020D935-X4F0-XX-UDD-FLL-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

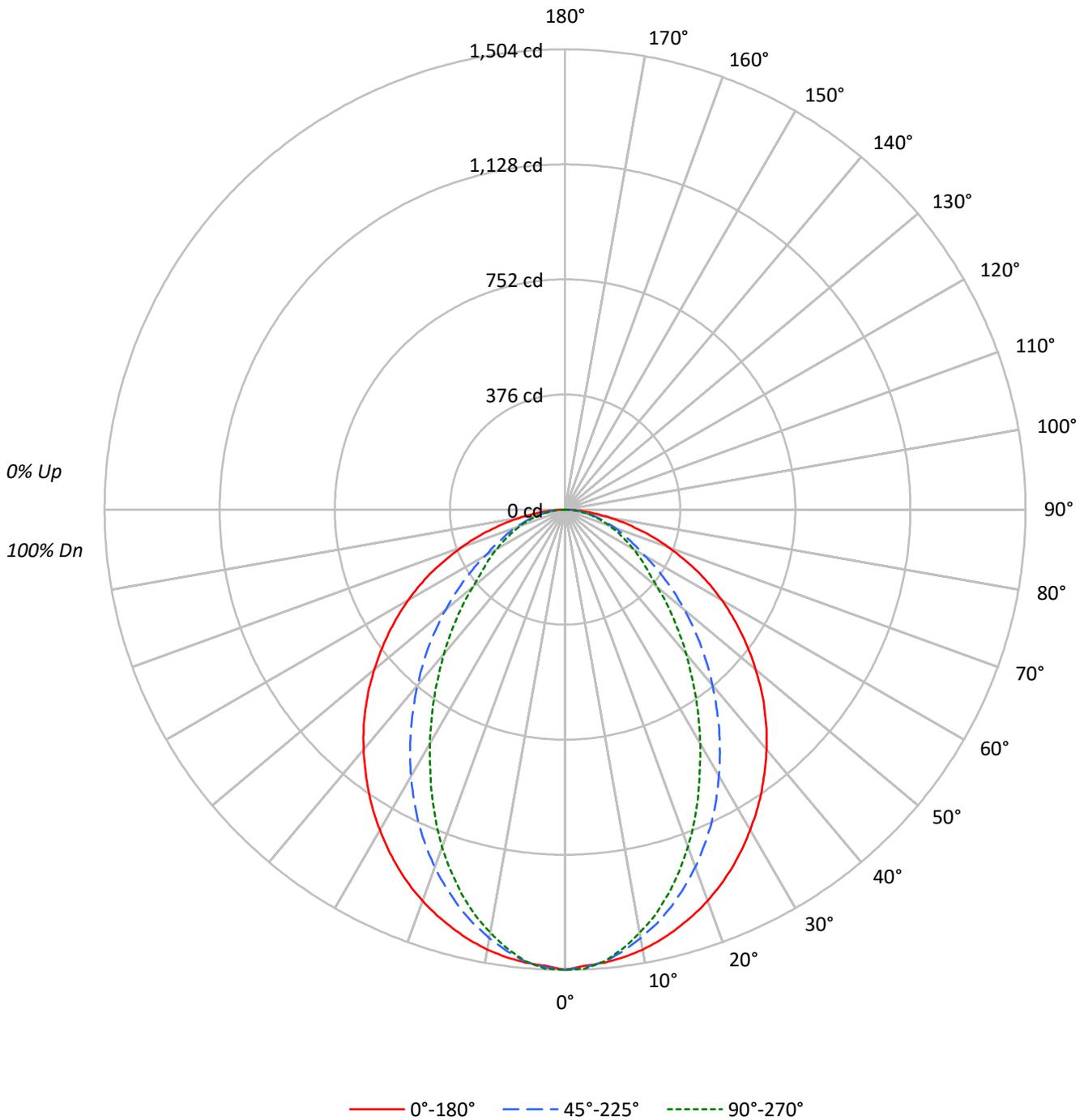
Lumens per Lamp: N/A
Luminaire Lumens: 2994.9 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73				73
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63				63
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55				55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49				49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43				43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39				39
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35				35
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32				32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29				29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13295	13295	13295
5°	13188	13158	13149
10°	13112	12765	12606
15°	12973	12285	11910
20°	12804	11701	11045
25°	12596	11031	10038
30°	12346	10268	9014
35°	12085	9470	8025
40°	11813	8646	7100
45°	11525	7845	6239
50°	11170	7001	5388
55°	10830	6157	4894
60°	10447	5282	4539
65°	9977	4791	4236
70°	9267	4433	4004
75°	8390	4082	3778
80°	7322	3773	3549
85°	5610	3480	3256

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11525 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.0	4.7
10°-20°	379.7	12.7
20°-30°	525.8	17.6
30°-40°	564.3	18.8
40°-50°	513.2	17.1
50°-60°	404.1	13.5
60°-70°	276.6	9.2
70°-80°	148.9	5.0
80°-90°	42.2	1.4
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°	1045.5	34.9
0°-40°	1609.8	53.8
0°-60°	2527.2	84.4
0°-90°	2994.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2994.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1504	1504	1504	1504	1504	
5°	1486	1502	1483	1475	1482	141
15°	1417	1402	1342	1306	1301	400
25°	1291	1238	1131	1049	1029	595
35°	1120	1032	877	771	744	700
45°	922	804	627	519	499	711
55°	703	569	399	322	318	628
65°	477	341	229	204	202	470
75°	246	149	120	110	111	262
85°	55	38	34	32	32	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1503.7	1503.7	1503.7	1503.7	1503.7
2.5°	1492.6	1510.3	1497.0	1499.2	1501.4
5°	1485.9	1502.5	1482.6	1474.9	1481.5
7.5°	1474.9	1485.9	1455.0	1440.6	1447.2
10°	1460.5	1462.7	1421.8	1400.8	1404.1
12.5°	1440.6	1435.1	1385.3	1355.4	1357.6
15°	1417.3	1401.9	1342.1	1305.6	1301.2
17.5°	1390.8	1365.3	1294.5	1248.1	1239.2
20°	1360.9	1326.6	1243.6	1183.9	1173.9
22.5°	1327.7	1283.5	1188.3	1117.5	1103.1
25°	1291.2	1238.1	1130.8	1048.9	1029.0
27.5°	1251.4	1189.4	1068.8	979.2	953.8
30°	1209.3	1138.5	1005.8	909.5	882.9
32.5°	1166.2	1086.5	941.6	839.8	812.1
35°	1119.7	1032.3	877.4	771.2	743.5
37.5°	1072.1	975.9	812.1	704.8	676.0
40°	1023.5	919.5	749.1	638.4	615.2
42.5°	973.7	861.9	687.1	576.5	555.4
45°	921.7	804.4	627.4	518.9	499.0
47.5°	868.6	745.7	566.5	464.7	445.9
50°	812.1	687.1	509.0	411.6	391.7
52.5°	757.9	627.4	453.6	359.6	349.6
55°	702.6	568.7	399.4	322.0	317.5
57.5°	647.3	510.1	349.6	292.1	287.7
60°	590.8	452.5	298.7	261.1	256.7
62.5°	534.4	396.1	261.1	231.2	229.0
65°	476.9	340.8	229.0	203.6	202.5
67.5°	416.0	287.7	200.3	179.2	178.1
70°	358.5	234.6	171.5	154.9	154.9
72.5°	304.3	185.9	144.9	131.7	131.7
75°	245.6	149.4	119.5	109.5	110.6
77.5°	193.6	117.3	96.3	89.6	89.6
80°	143.8	87.4	74.1	68.6	69.7
82.5°	97.4	60.9	53.1	49.8	49.8
85°	55.3	37.6	34.3	32.1	32.1
87.5°	19.9	17.7	16.6	14.4	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)