

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: P1055582

Luminaire Tested: S123R3DR-S1165D840-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055582
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S1165D840-X4F0-XX-UDD-FLL-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

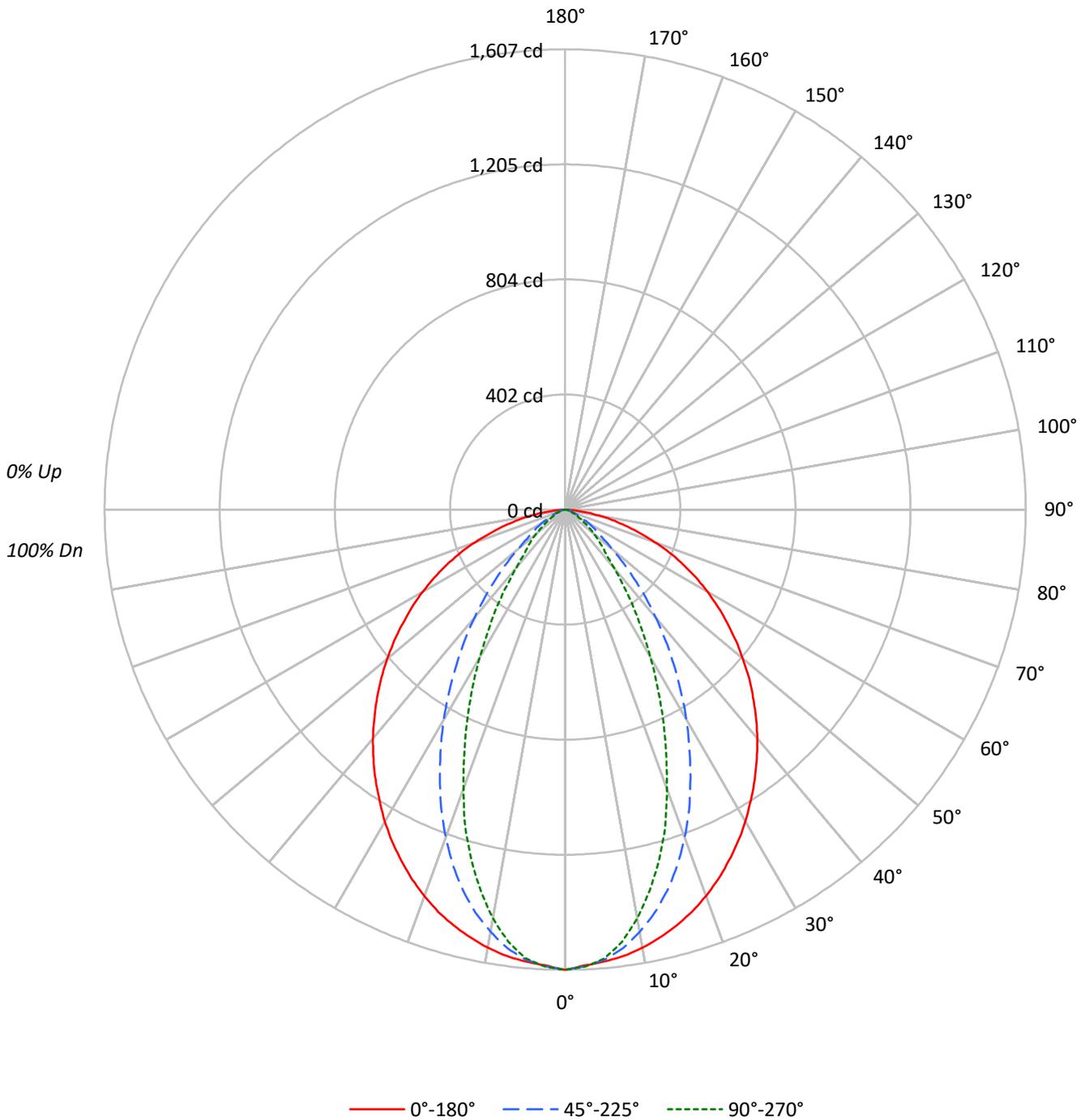
Lumens per Lamp: N/A
Luminaire Lumens: 2234.6 lumens
Efficiency: N/A
Efficacy: 53.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56				56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19372	19372	19372
5°	19169	19096	19041
10°	19019	18328	17750
15°	18763	17185	15797
20°	18427	15632	13307
25°	17991	13756	10738
30°	17513	11789	8269
35°	16969	9729	6120
40°	16420	7742	4171
45°	15814	5790	3142
50°	15168	4027	2457
55°	14501	2945	1793
60°	13809	2204	1285
65°	12992	1478	998
70°	11756	1075	804
75°	10146	783	638
80°	8144	632	528
85°	4219	636	415

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15814 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.5	6.6
10°-20°	386.6	17.3
20°-30°	485.8	21.7
30°-40°	452.4	20.2
40°-50°	346.3	15.5
50°-60°	230.2	10.3
60°-70°	124.1	5.6
70°-80°	50.8	2.3
80°-90°	9.7	0.4
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°	1020.9	45.7
0°-40°	1473.3	65.9
0°-60°	2049.9	91.7
0°-90°	2234.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2234.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1607	1607	1607	1607	1607	
5°	1584	1601	1578	1572	1573	150
15°	1503	1479	1377	1296	1266	424
25°	1352	1261	1034	862	807	623
35°	1153	982	661	468	416	721
45°	928	685	340	200	184	716
55°	690	399	140	98	85	618
65°	455	154	52	38	35	450
75°	218	37	17	15	14	233
85°	30	5	5	5	3	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1606.8	1606.8	1606.8	1606.8	1606.8
2.5°	1593.1	1612.9	1596.1	1597.7	1597.7
5°	1583.9	1600.7	1577.9	1571.8	1573.3
7.5°	1571.8	1582.4	1544.4	1524.6	1521.5
10°	1553.5	1556.5	1497.1	1462.1	1449.9
12.5°	1530.6	1520.0	1442.3	1384.4	1361.6
15°	1503.2	1478.9	1376.8	1296.1	1265.6
17.5°	1472.8	1431.6	1302.2	1197.1	1160.5
20°	1436.2	1378.3	1218.4	1087.4	1037.2
22.5°	1396.6	1322.0	1130.1	974.7	918.4
25°	1352.4	1261.1	1034.1	862.0	807.2
27.5°	1306.8	1195.6	939.7	755.4	699.1
30°	1258.0	1128.6	846.8	651.9	594.0
32.5°	1204.7	1055.5	750.9	555.9	498.0
35°	1152.9	982.4	661.0	467.6	415.8
37.5°	1098.1	909.2	574.2	389.9	332.0
40°	1043.3	834.6	491.9	313.7	265.0
42.5°	985.4	760.0	414.3	249.8	211.7
45°	927.5	685.4	339.6	199.5	184.3
47.5°	869.6	610.7	274.1	172.1	156.9
50°	808.7	539.2	214.7	146.2	131.0
52.5°	750.9	467.6	167.5	120.3	106.6
55°	689.9	399.0	140.1	97.5	85.3
57.5°	633.6	329.0	115.8	76.2	67.0
60°	572.7	266.5	91.4	59.4	53.3
62.5°	514.8	208.7	70.1	47.2	42.6
65°	455.4	153.8	51.8	38.1	35.0
67.5°	396.0	111.2	39.6	30.5	28.9
70°	333.5	83.8	30.5	24.4	22.8
72.5°	274.1	59.4	22.8	19.8	18.3
75°	217.8	36.6	16.8	15.2	13.7
77.5°	167.5	21.3	12.2	12.2	10.7
80°	117.3	12.2	9.1	9.1	7.6
82.5°	71.6	7.6	6.1	6.1	6.1
85°	30.5	4.6	4.6	4.6	3.0
87.5°	4.6	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)