

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: P1055556

Luminaire Tested: S123R3DR-S1000D840-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055556
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S1000D840-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

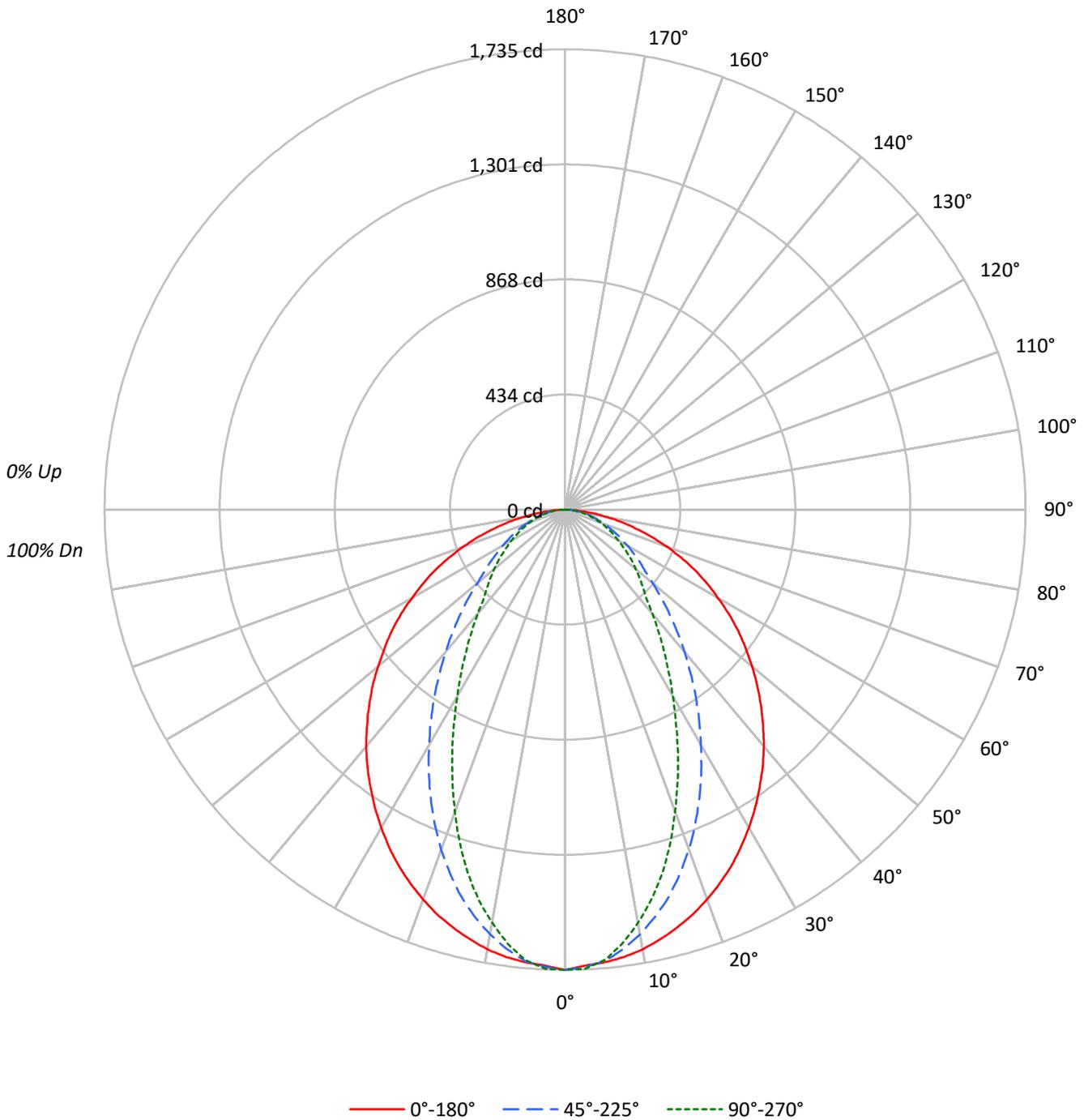
Lumens per Lamp: N/A
Luminaire Lumens: 3043.0 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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				
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74				
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57				
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				
8	65	53	45	39	64	52	44	39	51	44	39	49	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	37	33	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20919	20919	20919
5°	20732	20684	20637
10°	20606	19907	19366
15°	20361	18855	17688
20°	20064	17499	15551
25°	19715	15934	13379
30°	19277	14254	11310
35°	18814	12606	9551
40°	18342	11009	8027
45°	17790	9492	7081
50°	17233	8082	6499
55°	16721	7201	6001
60°	16021	6508	5601
65°	15365	5959	5258
70°	14319	5489	4942
75°	12815	5077	4654
80°	10991	4687	4325
85°	7719	4302	4122

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17790 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.8	5.3
10°-20°	425.5	14.0
20°-30°	560.6	18.4
30°-40°	568.9	18.7
40°-50°	494.5	16.3
50°-60°	387.5	12.7
60°-70°	263.2	8.7
70°-80°	142.7	4.7
80°-90°	39.3	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°	1146.9	37.7
0°-40°	1715.9	56.4
0°-60°	2597.9	85.4
0°-90°	3043.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3043.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1735	1735	1735	1735	1735	
5°	1713	1734	1709	1694	1705	163
15°	1631	1608	1511	1437	1417	460
25°	1482	1392	1198	1049	1006	682
35°	1278	1126	856	693	649	800
45°	1043	837	557	430	415	805
55°	796	553	343	292	286	710
65°	539	298	209	187	184	532
75°	275	138	109	101	100	294
85°	56	34	31	29	30	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1735.1	1735.1	1735.1	1735.1	1735.1
2.5°	1720.8	1742.9	1726.0	1727.3	1732.5
5°	1713.0	1733.8	1709.1	1693.6	1705.2
7.5°	1701.3	1716.9	1671.5	1646.8	1650.7
10°	1683.2	1688.4	1626.1	1587.1	1581.9
12.5°	1658.5	1649.4	1571.6	1514.5	1505.4
15°	1631.3	1607.9	1510.6	1436.6	1417.1
17.5°	1600.1	1561.2	1439.2	1348.4	1318.5
20°	1563.8	1509.3	1363.9	1248.4	1212.1
22.5°	1524.8	1454.8	1282.2	1145.9	1108.3
25°	1482.0	1392.5	1197.8	1048.6	1005.7
27.5°	1435.3	1330.2	1112.2	952.5	904.5
30°	1384.7	1265.3	1023.9	859.1	812.4
32.5°	1332.8	1196.5	939.6	772.2	726.7
35°	1278.3	1126.4	856.5	693.0	648.9
37.5°	1222.5	1055.1	776.0	617.7	576.2
40°	1165.4	982.4	699.5	547.6	510.0
42.5°	1104.4	909.7	625.5	481.5	452.9
45°	1043.4	837.0	556.7	429.6	415.3
47.5°	982.4	763.1	491.8	393.2	380.2
50°	918.8	691.7	430.9	359.5	346.5
52.5°	856.5	621.6	380.2	327.0	317.9
55°	795.5	552.8	342.6	292.0	285.5
57.5°	731.9	485.4	305.0	264.7	257.0
60°	664.4	420.5	269.9	236.2	232.3
62.5°	603.4	359.5	238.8	211.5	207.6
65°	538.6	298.5	208.9	186.9	184.3
67.5°	472.4	247.9	181.7	163.5	162.2
70°	406.2	208.9	155.7	141.5	140.2
72.5°	341.3	172.6	131.1	122.0	119.4
75°	275.1	137.6	109.0	101.2	99.9
77.5°	215.4	106.4	86.9	81.8	80.5
80°	158.3	79.2	67.5	63.6	62.3
82.5°	103.8	54.5	48.0	45.4	45.4
85°	55.8	33.7	31.1	28.6	29.8
87.5°	19.5	14.3	14.3	13.0	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)