

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: P1055583

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055583
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-S1165D840-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

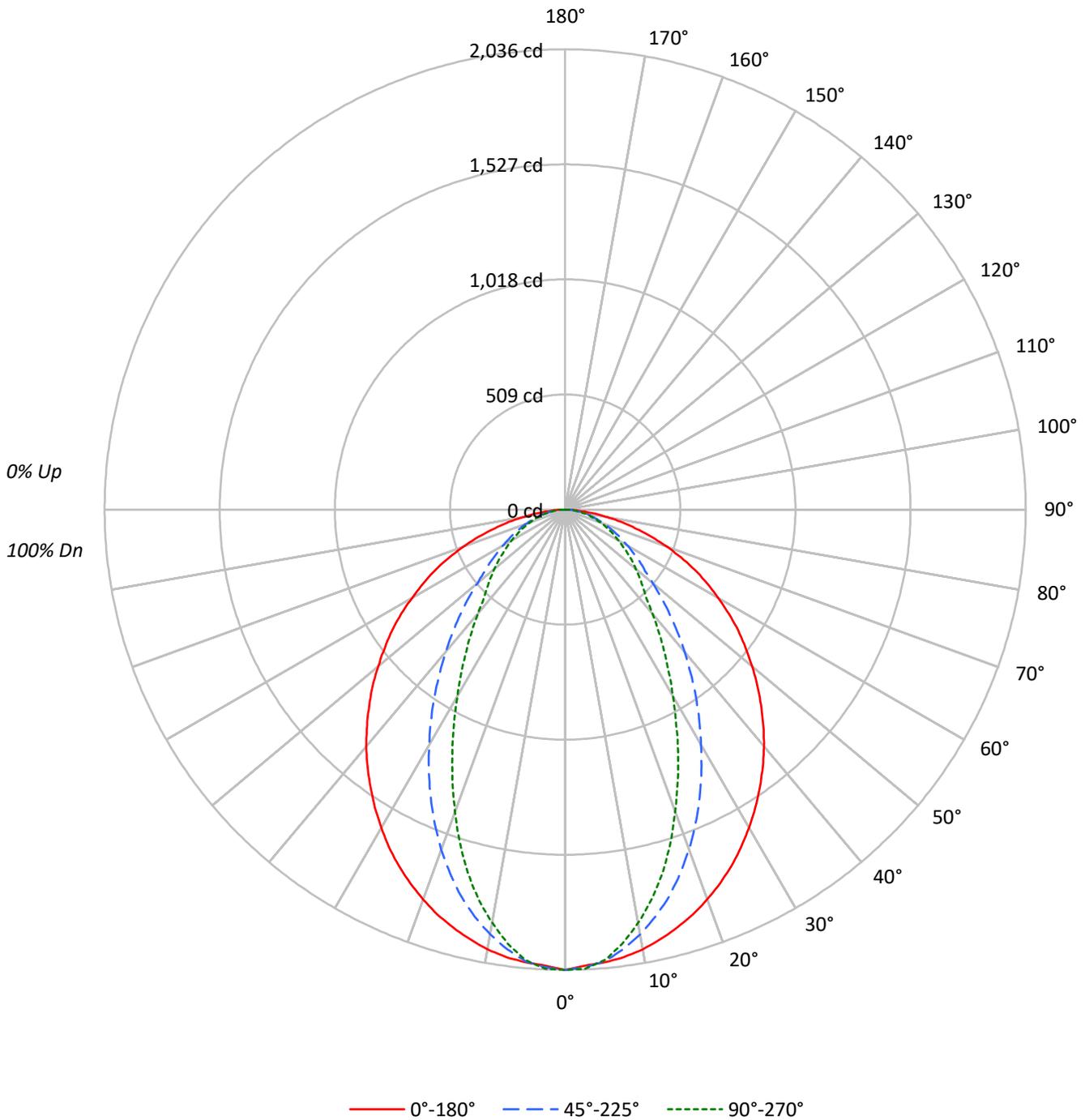
Lumens per Lamp: N/A
Luminaire Lumens: 3571.3 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	24550	24550	24550
5°	24331	24275	24221
10°	24184	23363	22729
15°	23895	22128	20758
20°	23547	20537	18251
25°	23138	18701	15701
30°	22624	16730	13273
35°	22080	14795	11208
40°	21526	12920	9421
45°	20878	11141	8310
50°	20225	9483	7626
55°	19624	8452	7044
60°	18803	7639	6573
65°	18032	6995	6171
70°	16804	6444	5799
75°	15041	5958	5464
80°	12900	5499	5075
85°	9061	5063	4842

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 20878 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.8	5.3
10°-20°	499.4	14.0
20°-30°	657.9	18.4
30°-40°	667.7	18.7
40°-50°	580.4	16.3
50°-60°	454.7	12.7
60°-70°	308.9	8.7
70°-80°	167.4	4.7
80°-90°	46.1	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°	1346.0	37.7
0°-40°	2013.8	56.4
0°-60°	3048.8	85.4
0°-90°	3571.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3571.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2036	2036	2036	2036	2036	
5°	2010	2035	2006	1988	2001	191
15°	1914	1887	1773	1686	1663	540
25°	1739	1634	1406	1231	1180	801
35°	1500	1322	1005	813	762	938
45°	1224	982	653	504	487	945
55°	934	649	402	343	335	833
65°	632	350	245	219	216	624
75°	323	161	128	119	117	345
85°	66	40	37	34	35	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2036.3	2036.3	2036.3	2036.3	2036.3
2.5°	2019.5	2045.4	2025.6	2027.2	2033.2
5°	2010.4	2034.8	2005.8	1987.6	2001.3
7.5°	1996.7	2015.0	1961.7	1932.7	1937.3
10°	1975.4	1981.5	1908.4	1862.7	1856.6
12.5°	1946.4	1935.8	1844.4	1777.4	1766.7
15°	1914.4	1887.0	1772.8	1686.0	1663.1
17.5°	1877.9	1832.2	1689.0	1582.4	1547.4
20°	1835.3	1771.3	1600.7	1465.2	1422.5
22.5°	1789.6	1707.3	1504.8	1344.8	1300.7
25°	1739.3	1634.2	1405.8	1230.6	1180.3
27.5°	1684.5	1561.1	1305.2	1117.9	1061.6
30°	1625.1	1485.0	1201.7	1008.2	953.4
32.5°	1564.2	1404.2	1102.7	906.2	852.9
35°	1500.2	1322.0	1005.2	813.3	761.5
37.5°	1434.7	1238.2	910.8	725.0	676.2
40°	1367.7	1152.9	820.9	642.7	598.6
42.5°	1296.1	1067.6	734.1	565.0	531.5
45°	1224.5	982.4	653.4	504.1	487.4
47.5°	1152.9	895.5	577.2	461.5	446.2
50°	1078.3	811.8	505.6	421.9	406.6
52.5°	1005.2	729.5	446.2	383.8	373.1
55°	933.6	648.8	402.1	342.7	335.1
57.5°	859.0	569.6	357.9	310.7	301.6
60°	779.8	493.5	316.8	277.2	272.6
62.5°	708.2	421.9	280.2	248.3	243.7
65°	632.1	350.3	245.2	219.3	216.3
67.5°	554.4	290.9	213.2	191.9	190.4
70°	476.7	245.2	182.8	166.0	164.5
72.5°	400.6	202.6	153.8	143.2	140.1
75°	322.9	161.4	127.9	118.8	117.3
77.5°	252.8	124.9	102.0	96.0	94.4
80°	185.8	92.9	79.2	74.6	73.1
82.5°	121.8	64.0	56.4	53.3	53.3
85°	65.5	39.6	36.6	33.5	35.0
87.5°	22.8	16.8	16.8	15.2	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)