

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: P1055586

Luminaire Tested: S123R3DR-S1165D850-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055586
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-S1165D850-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

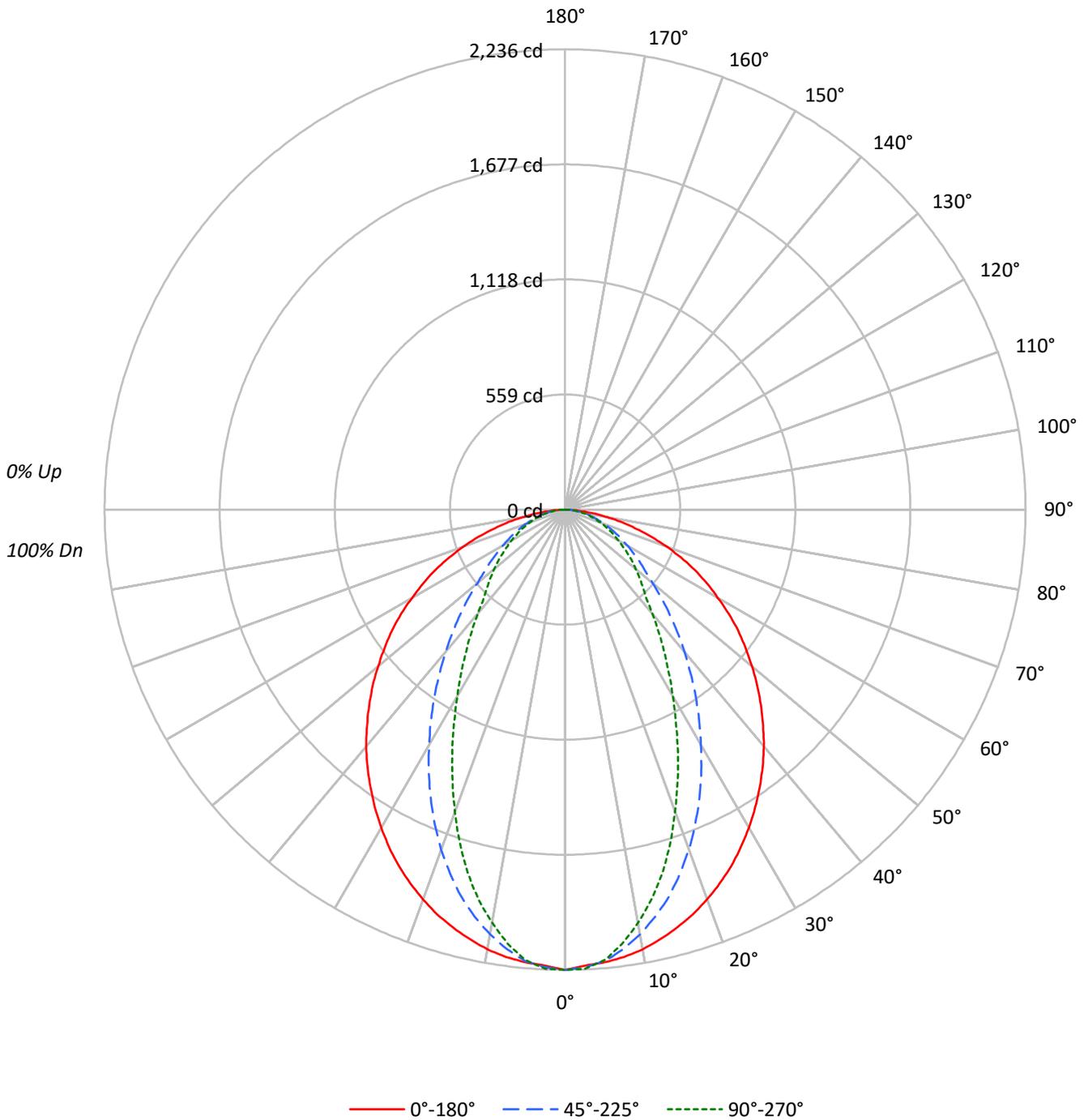
Lumens per Lamp: N/A
Luminaire Lumens: 3921.9 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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°	26961	26961	26961
5°	26720	26658	26598
10°	26557	25656	24960
15°	26242	24299	22797
20°	25858	22553	20043
25°	25408	20537	17243
30°	24844	18371	14576
35°	24248	16247	12309
40°	23638	14188	10345
45°	22928	12234	9125
50°	22211	10415	8377
55°	21552	9282	7735
60°	20648	8389	7219
65°	19801	7683	6775
70°	18454	7075	6366
75°	16518	6545	6000
80°	14164	6040	5575
85°	9946	5547	5326

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22928 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.3	5.3
10°-20°	548.4	14.0
20°-30°	722.5	18.4
30°-40°	733.3	18.7
40°-50°	637.4	16.3
50°-60°	499.4	12.7
60°-70°	339.3	8.7
70°-80°	183.9	4.7
80°-90°	50.6	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°	1478.2	37.7
0°-40°	2211.4	56.4
0°-60°	3348.2	85.4
0°-90°	3921.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3921.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2236	2236	2236	2236	2236	
5°	2208	2234	2203	2183	2198	210
15°	2102	2072	1947	1852	1826	593
25°	1910	1795	1544	1351	1296	879
35°	1648	1452	1104	893	836	1031
45°	1345	1079	718	554	535	1038
55°	1025	712	442	376	368	915
65°	694	385	269	241	238	685
75°	355	177	140	130	129	379
85°	72	44	40	37	38	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2236.2	2236.2	2236.2	2236.2	2236.2
2.5°	2217.8	2246.2	2224.5	2226.2	2232.8
5°	2207.8	2234.5	2202.7	2182.7	2197.7
7.5°	2192.7	2212.8	2154.2	2122.5	2127.5
10°	2169.3	2176.0	2095.7	2045.5	2038.8
12.5°	2137.5	2125.8	2025.4	1951.9	1940.1
15°	2102.4	2072.3	1946.8	1851.5	1826.4
17.5°	2062.2	2012.1	1854.8	1737.8	1699.3
20°	2015.4	1945.2	1757.8	1609.0	1562.2
22.5°	1965.2	1874.9	1652.5	1476.9	1428.3
25°	1910.0	1794.6	1543.8	1351.4	1296.2
27.5°	1849.8	1714.4	1433.4	1227.6	1165.8
30°	1784.6	1630.7	1319.6	1107.2	1047.0
32.5°	1717.7	1542.1	1210.9	995.2	936.6
35°	1647.5	1451.8	1103.9	893.1	836.3
37.5°	1575.5	1359.8	1000.2	796.1	742.6
40°	1501.9	1266.1	901.5	705.8	657.3
42.5°	1423.3	1172.5	806.2	620.5	583.7
45°	1344.7	1078.8	717.5	553.6	535.2
47.5°	1266.1	983.5	633.9	506.8	490.1
50°	1184.2	891.5	555.3	463.3	446.6
52.5°	1103.9	801.1	490.1	421.5	409.8
55°	1025.3	712.5	441.6	376.3	368.0
57.5°	943.3	625.5	393.0	341.2	331.2
60°	856.3	541.9	347.9	304.4	299.4
62.5°	777.7	463.3	307.7	272.6	267.6
65°	694.1	384.7	269.3	240.8	237.5
67.5°	608.8	319.5	234.2	210.7	209.1
70°	523.5	269.3	200.7	182.3	180.6
72.5°	439.9	222.4	168.9	157.2	153.9
75°	354.6	177.3	140.5	130.5	128.8
77.5°	277.6	137.1	112.1	105.4	103.7
80°	204.0	102.0	87.0	82.0	80.3
82.5°	133.8	70.2	61.9	58.5	58.5
85°	71.9	43.5	40.1	36.8	38.5
87.5°	25.1	18.4	18.4	16.7	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)