

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: P1055607

Luminaire Tested: S123R3DR-S340D835-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055607
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-S340D835-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

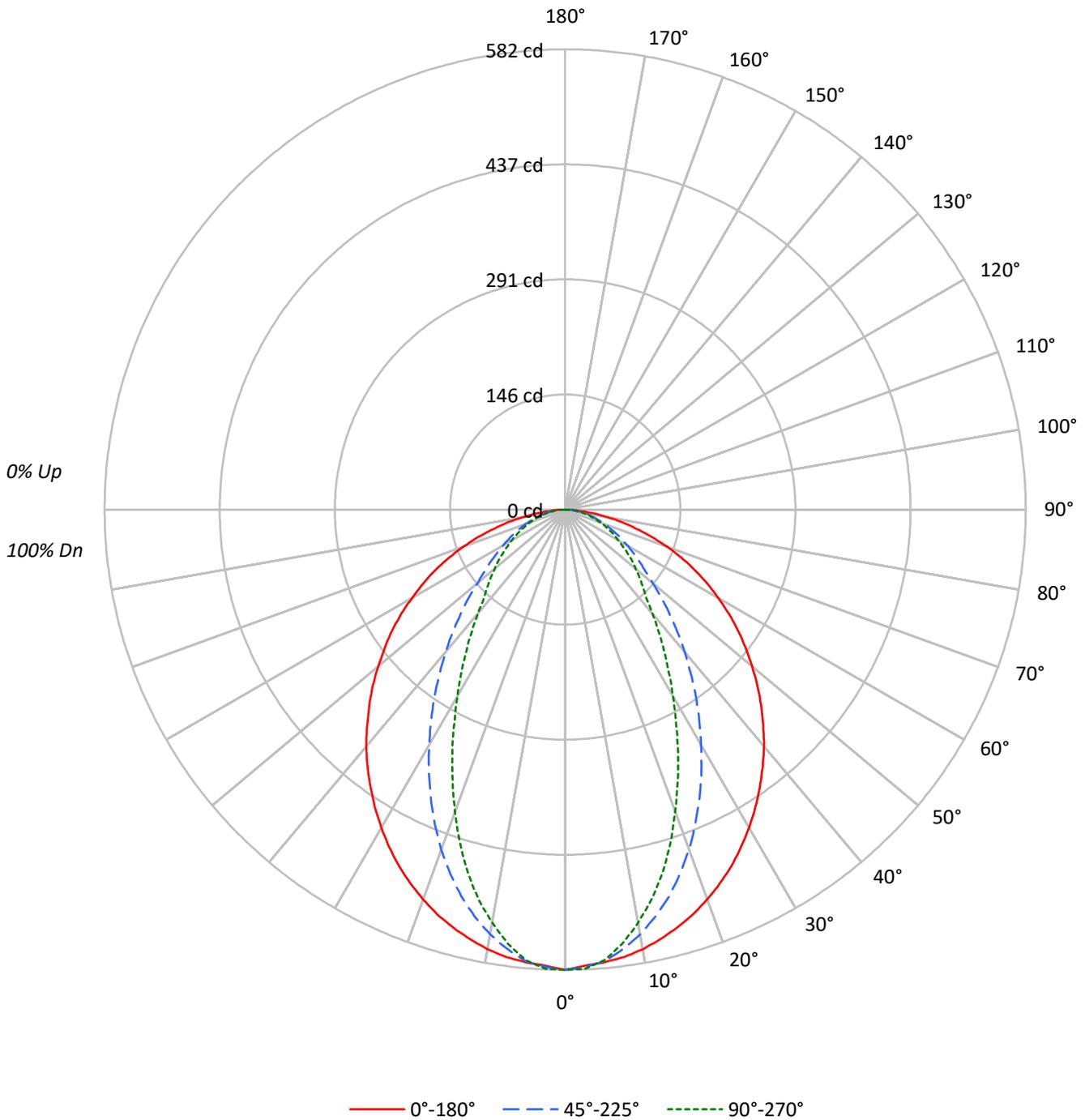
Lumens per Lamp: N/A
Luminaire Lumens: 1020.6 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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°	7016	7016	7016
5°	6953	6937	6921
10°	6911	6677	6496
15°	6829	6323	5933
20°	6729	5870	5215
25°	6613	5344	4487
30°	6465	4781	3794
35°	6310	4229	3203
40°	6152	3692	2693
45°	5966	3183	2375
50°	5781	2710	2179
55°	5608	2415	2014
60°	5375	2182	1878
65°	5152	2000	1763
70°	4801	1840	1657
75°	4300	1705	1561
80°	3687	1569	1451
85°	2587	1439	1383

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5966 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	5.3
10°-20°	142.7	14.0
20°-30°	188.0	18.4
30°-40°	190.8	18.7
40°-50°	165.9	16.3
50°-60°	130.0	12.7
60°-70°	88.3	8.6
70°-80°	47.9	4.7
80°-90°	13.2	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°	384.7	37.7
0°-40°	575.5	56.4
0°-60°	871.3	85.4
0°-90°	1020.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1020.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	582	582	582	582	582	
5°	574	582	573	568	572	55
15°	547	539	507	482	475	154
25°	497	467	402	352	337	229
35°	429	378	287	232	218	268
45°	350	281	187	144	139	270
55°	267	185	115	98	96	238
65°	181	100	70	63	62	178
75°	92	46	37	34	34	99
85°	19	11	10	10	10	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	581.9	581.9	581.9	581.9	581.9
2.5°	577.2	584.6	578.9	579.3	581.1
5°	574.5	581.5	573.2	568.0	571.9
7.5°	570.6	575.8	560.6	552.3	553.6
10°	564.5	566.3	545.4	532.3	530.6
12.5°	556.3	553.2	527.1	507.9	504.9
15°	547.1	539.3	506.6	481.8	475.3
17.5°	536.7	523.6	482.7	452.2	442.2
20°	524.5	506.2	457.5	418.7	406.5
22.5°	511.4	487.9	430.0	384.3	371.7
25°	497.1	467.0	401.7	351.7	337.3
27.5°	481.4	446.1	373.0	319.5	303.4
30°	464.4	424.4	343.4	288.1	272.5
32.5°	447.0	401.3	315.1	259.0	243.7
35°	428.7	377.8	287.3	232.4	217.6
37.5°	410.0	353.9	260.3	207.2	193.3
40°	390.9	329.5	234.6	183.7	171.1
42.5°	370.4	305.1	209.8	161.5	151.9
45°	349.9	280.7	186.7	144.1	139.3
47.5°	329.5	255.9	165.0	131.9	127.5
50°	308.2	232.0	144.5	120.6	116.2
52.5°	287.3	208.5	127.5	109.7	106.6
55°	266.8	185.4	114.9	97.9	95.8
57.5°	245.5	162.8	102.3	88.8	86.2
60°	222.9	141.0	90.5	79.2	77.9
62.5°	202.4	120.6	80.1	70.9	69.6
65°	180.6	100.1	70.1	62.7	61.8
67.5°	158.4	83.1	60.9	54.8	54.4
70°	136.2	70.1	52.2	47.4	47.0
72.5°	114.5	57.9	44.0	40.9	40.0
75°	92.3	46.1	36.6	34.0	33.5
77.5°	72.3	35.7	29.2	27.4	27.0
80°	53.1	26.6	22.6	21.3	20.9
82.5°	34.8	18.3	16.1	15.2	15.2
85°	18.7	11.3	10.4	9.6	10.0
87.5°	6.5	4.8	4.8	4.4	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)