

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: P1055634

Luminaire Tested: S123R3DR-S560D835-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055634
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-S560D835-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

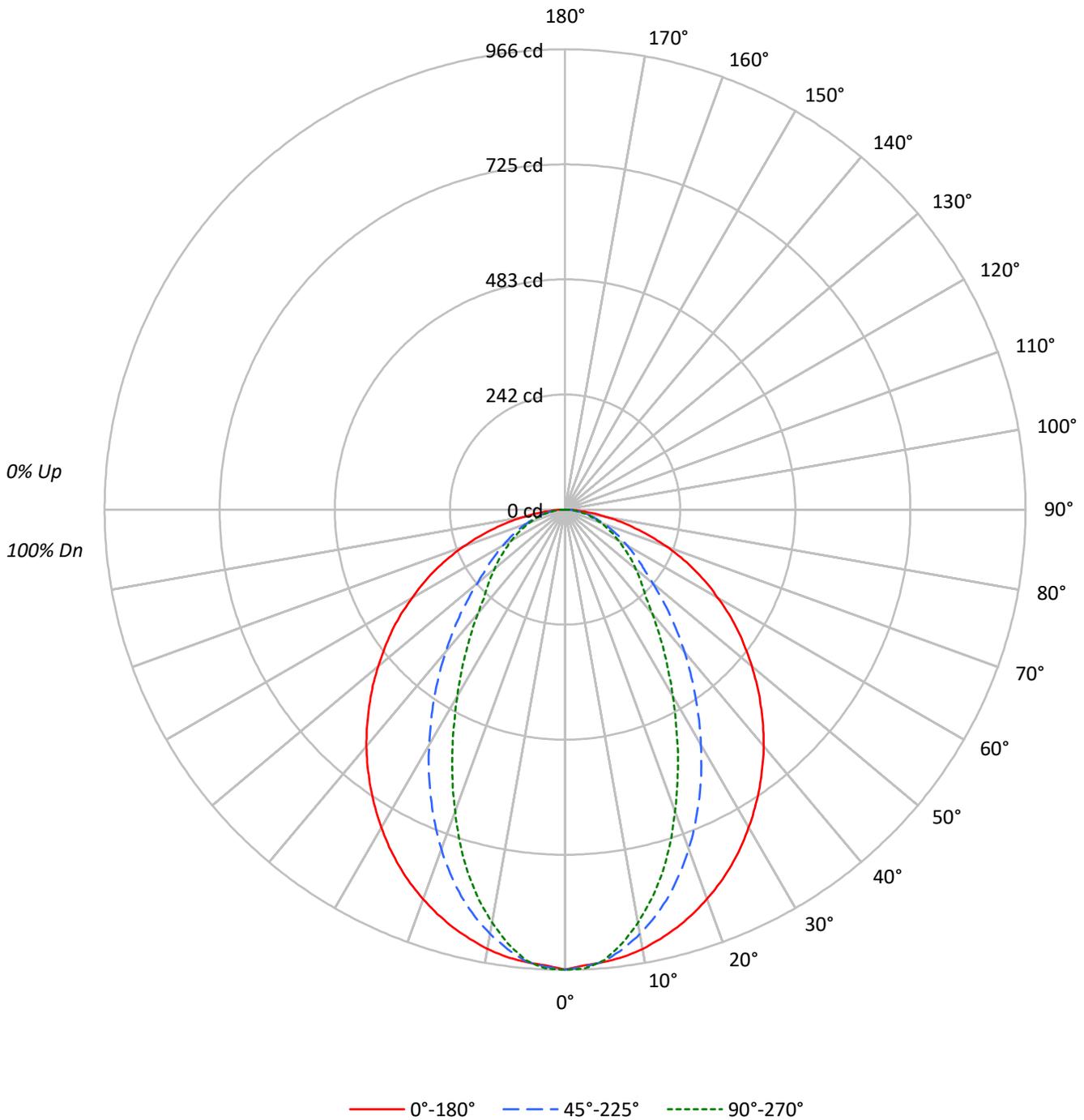
Lumens per Lamp: N/A
Luminaire Lumens: 1693.3 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86			86	
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74			74	
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65			65	
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57			57	
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50			50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45			45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40			40	
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37			37	
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34			34	
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31			31	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11640	11640	11640
5°	11536	11511	11484
10°	11466	11077	10777
15°	11330	10492	9843
20°	11165	9738	8654
25°	10971	8866	7446
30°	10727	7932	6294
35°	10469	7015	5315
40°	10206	6125	4467
45°	9899	5282	3940
50°	9590	4498	3616
55°	9305	4006	3340
60°	8915	3622	3118
65°	8550	3318	2924
70°	7967	3056	2750
75°	7132	2828	2590
80°	6117	2611	2409
85°	4302	2393	2296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9899 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	5.3
10°-20°	236.8	14.0
20°-30°	311.9	18.4
30°-40°	316.6	18.7
40°-50°	275.2	16.3
50°-60°	215.6	12.7
60°-70°	146.5	8.7
70°-80°	79.4	4.7
80°-90°	21.9	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°	638.2	37.7
0°-40°	954.8	56.4
0°-60°	1445.6	85.4
0°-90°	1693.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1693.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	953	965	951	942	949	90
15°	908	895	841	799	789	256
25°	825	775	666	584	560	380
35°	711	627	477	386	361	445
45°	581	466	310	239	231	448
55°	443	308	191	162	159	395
65°	300	166	116	104	102	296
75°	153	76	61	56	56	163
85°	31	19	17	16	17	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	965.5	965.5	965.5	965.5	965.5
2.5°	957.6	969.8	960.4	961.2	964.1
5°	953.2	964.8	951.1	942.4	948.9
7.5°	946.7	955.4	930.1	916.4	918.6
10°	936.6	939.5	904.8	883.2	880.3
12.5°	922.9	917.8	874.5	842.7	837.7
15°	907.7	894.7	840.6	799.4	788.6
17.5°	890.4	868.7	800.9	750.3	733.7
20°	870.2	839.9	759.0	694.7	674.5
22.5°	848.5	809.5	713.5	637.7	616.7
25°	824.7	774.9	666.5	583.5	559.7
27.5°	798.7	740.2	618.9	530.1	503.3
30°	770.5	704.1	569.8	478.1	452.1
32.5°	741.6	665.8	522.8	429.7	404.4
35°	711.3	626.8	476.6	385.6	361.1
37.5°	680.3	587.1	431.8	343.7	320.6
40°	648.5	546.7	389.2	304.7	283.8
42.5°	614.5	506.2	348.1	267.9	252.0
45°	580.6	465.8	309.8	239.0	231.1
47.5°	546.7	424.6	273.7	218.8	211.6
50°	511.3	384.9	239.8	200.0	192.8
52.5°	476.6	345.9	211.6	182.0	176.9
55°	442.7	307.6	190.6	162.5	158.9
57.5°	407.3	270.1	169.7	147.3	143.0
60°	369.7	234.0	150.2	131.4	129.3
62.5°	335.8	200.0	132.9	117.7	115.5
65°	299.7	166.1	116.3	104.0	102.5
67.5°	262.9	137.9	101.1	91.0	90.3
70°	226.0	116.3	86.7	78.7	78.0
72.5°	189.9	96.0	72.9	67.9	66.4
75°	153.1	76.5	60.7	56.3	55.6
77.5°	119.9	59.2	48.4	45.5	44.8
80°	88.1	44.1	37.6	35.4	34.7
82.5°	57.8	30.3	26.7	25.3	25.3
85°	31.1	18.8	17.3	15.9	16.6
87.5°	10.8	7.9	7.9	7.2	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)