

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: P1055593

Luminaire Tested: S123R3DR-S1165D935-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055593
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S1165D935-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

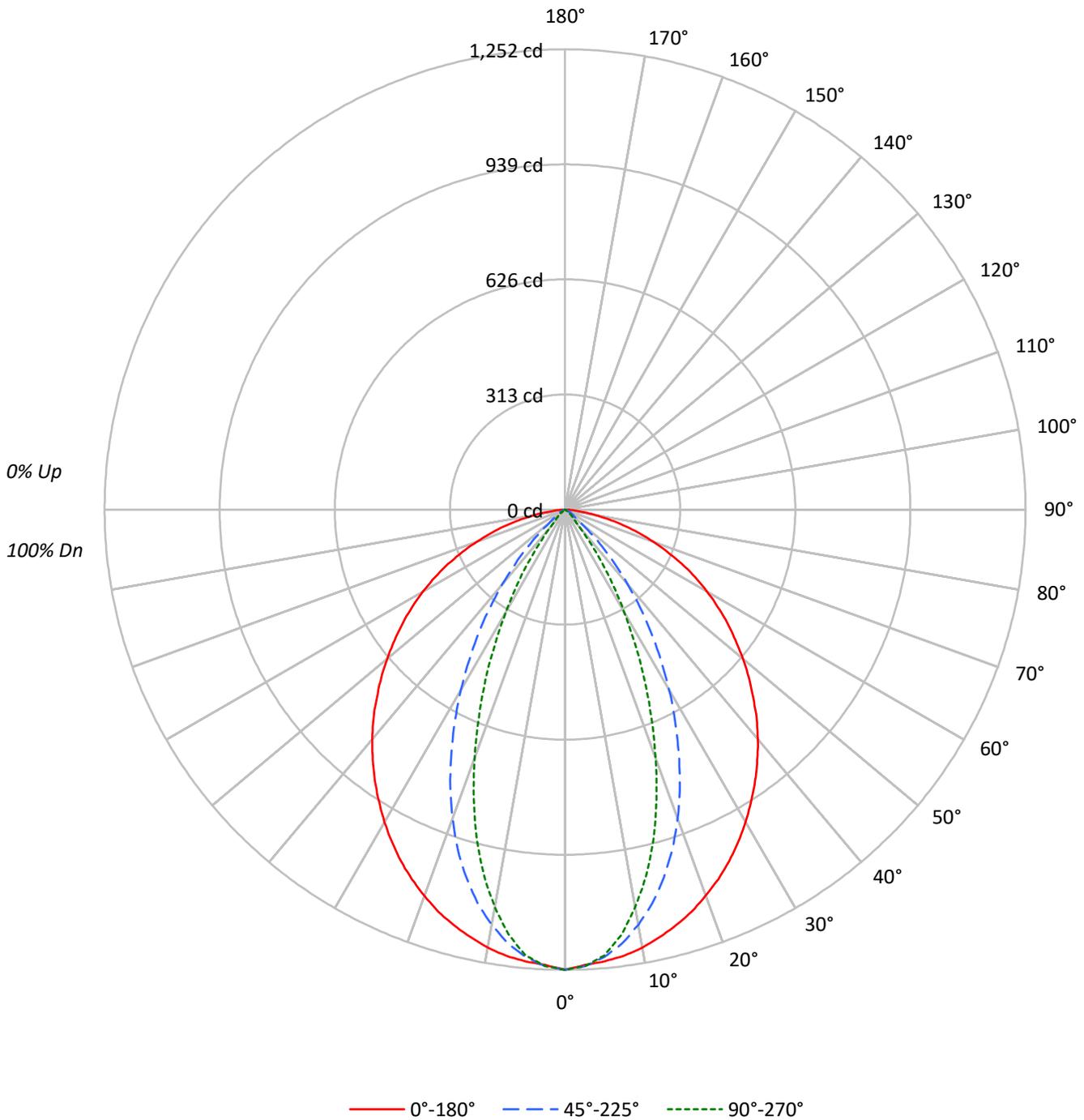
Lumens per Lamp: N/A
Luminaire Lumens: 1465.1 lumens
Efficiency: N/A
Efficacy: 35.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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	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	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	81	70	63	57	79	69	62	57	67	61	57	66	61	56	64	60	56	54				
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43				
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15092	15092	15092
5°	14930	14788	14741
10°	14816	14037	13448
15°	14604	12934	11588
20°	14344	11479	9230
25°	14044	9726	6806
30°	13667	7882	4465
35°	13264	6001	2446
40°	12835	4149	837
45°	12333	2413	488
50°	11837	949	293
55°	11328	601	137
60°	10740	376	63
65°	10002	185	37
70°	8971	92	46
75°	7621	61	61
80°	5679	90	0
85°	2158	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12333 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.8	7.8
10°-20°	291.3	19.9
20°-30°	347.4	23.7
30°-40°	294.7	20.1
40°-50°	200.3	13.7
50°-60°	124.1	8.5
60°-70°	62.9	4.3
70°-80°	25.7	1.8
80°-90°	3.9	0.3
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°	753.4	51.4
0°-40°	1048.1	71.5
0°-60°	1372.6	93.7
0°-90°	1465.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1465.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1252	1252	1252	1252	1252	
5°	1234	1245	1222	1213	1218	117
15°	1170	1140	1036	954	928	330
25°	1056	957	731	565	512	486
35°	901	723	408	219	166	563
45°	723	474	142	35	29	559
55°	539	239	29	10	6	481
65°	351	58	6	1	1	346
75°	164	10	1	1	1	174
85°	16	0	0	1	0	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1251.8	1251.8	1251.8	1251.8	1251.8
2.5°	1240.1	1257.0	1242.7	1241.4	1242.7
5°	1233.6	1245.3	1221.9	1212.8	1218.0
7.5°	1224.5	1229.7	1190.7	1167.4	1167.4
10°	1210.2	1206.3	1146.6	1107.6	1098.5
12.5°	1190.7	1175.2	1097.2	1036.2	1019.3
15°	1170.0	1140.1	1036.2	954.4	928.4
17.5°	1146.6	1101.1	970.0	863.5	825.9
20°	1118.0	1057.0	894.7	764.8	719.4
22.5°	1088.2	1008.9	815.5	663.5	612.9
25°	1055.7	957.0	731.1	564.9	511.6
27.5°	1019.3	902.5	648.0	470.1	411.6
30°	981.7	845.3	566.2	379.2	320.7
32.5°	941.4	785.6	484.3	296.1	241.5
35°	901.2	723.3	407.7	219.4	166.2
37.5°	858.3	660.9	333.7	151.9	105.2
40°	815.5	599.9	263.6	96.1	53.2
42.5°	771.3	536.3	200.0	48.0	36.4
45°	723.3	474.0	141.5	35.1	28.6
47.5°	677.8	414.2	93.5	28.6	22.1
50°	631.1	354.5	50.6	20.8	15.6
52.5°	584.3	297.4	36.4	15.6	10.4
55°	538.9	238.9	28.6	10.4	6.5
57.5°	492.1	188.3	22.1	6.5	3.9
60°	445.4	138.9	15.6	3.9	2.6
62.5°	398.6	96.1	10.4	2.6	1.3
65°	350.6	58.4	6.5	1.3	1.3
67.5°	301.3	40.3	3.9	1.3	1.3
70°	254.5	28.6	2.6	1.3	1.3
72.5°	207.8	18.2	1.3	1.3	0.0
75°	163.6	10.4	1.3	1.3	1.3
77.5°	120.8	3.9	1.3	1.3	0.0
80°	81.8	1.3	1.3	1.3	0.0
82.5°	45.4	0.0	1.3	1.3	0.0
85°	15.6	0.0	0.0	1.3	0.0
87.5°	0.0	0.0	0.0	1.3	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)