

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: P1059354

Luminaire Tested: S123RDR-S775D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059354
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S775D840-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

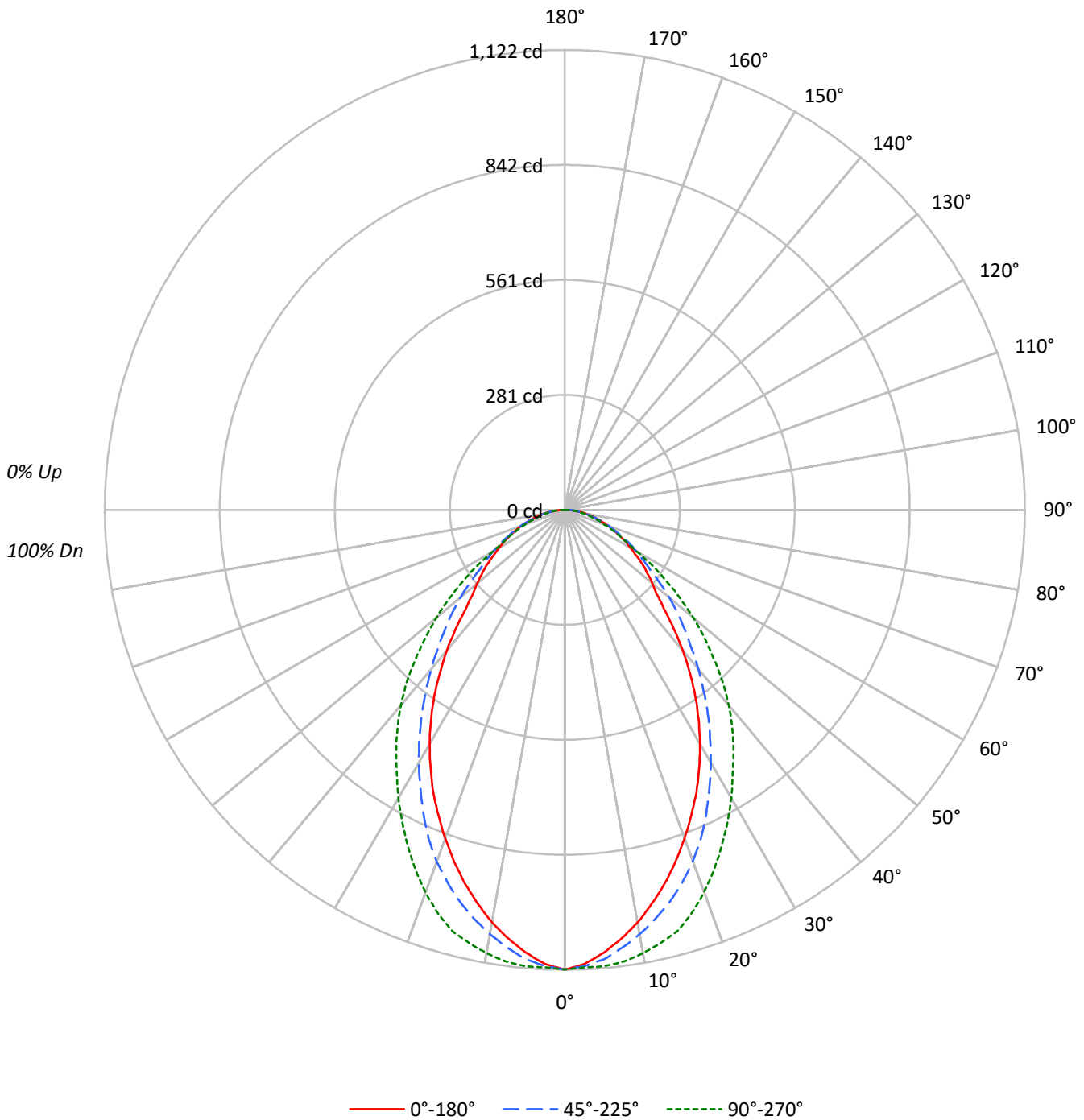
Lumens per Lamp: N/A
Luminaire Lumens: 1970.7 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
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	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13169	13169	13169
5°	12787	12970	13173
10°	12187	12532	13096
15°	11463	12027	12930
20°	10662	11409	12410
25°	9842	10579	11729
30°	8938	9658	11006
35°	7956	8716	10280
40°	6864	7767	9528
45°	5674	6875	8542
50°	5095	6065	7459
55°	4723	5177	6185
60°	4352	4713	4737
65°	4048	4265	3968
70°	3811	3876	3478
75°	3589	3457	3067
80°	3395	3131	2874
85°	3247	3516	3247

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8542 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.9	5.3
10°-20°	279.8	14.2
20°-30°	378.6	19.2
30°-40°	389.0	19.7
40°-50°	326.7	16.6
50°-60°	234.2	11.9
60°-70°	149.1	7.6
70°-80°	81.9	4.2
80°-90°	27.3	1.4
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°	762.3	38.7
0°-40°	1151.3	58.4
0°-60°	1712.3	86.9
0°-90°	1970.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1970.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1122	1122	1122	1122	1122	
5°	1085	1104	1100	1108	1118	102
15°	943	969	989	1032	1064	264
25°	760	788	816	861	905	348
35°	555	585	608	662	717	345
45°	342	372	414	474	514	270
55°	231	236	253	287	302	206
65°	146	154	154	145	143	145
75°	79	87	76	70	68	84
85°	24	25	26	27	24	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1121.5	1121.5	1121.5	1121.5	1121.5
2.5°	1108.9	1124.4	1113.8	1114.7	1117.6
5°	1084.8	1104.1	1100.3	1108.0	1117.6
7.5°	1054.9	1076.1	1077.1	1095.4	1110.9
10°	1022.1	1044.3	1051.0	1079.0	1098.3
12.5°	983.5	1007.6	1022.1	1056.8	1081.9
15°	942.9	969.0	989.3	1031.7	1063.6
17.5°	898.5	926.5	952.6	998.0	1030.8
20°	853.2	883.1	913.0	955.5	993.1
22.5°	805.9	836.8	867.7	909.2	950.7
25°	759.6	788.5	816.5	860.9	905.3
27.5°	709.4	739.3	763.4	812.6	859.0
30°	659.2	689.1	712.3	763.4	811.7
32.5°	607.1	638.0	659.2	712.3	762.5
35°	555.0	584.9	608.0	662.1	717.1
37.5°	499.9	532.8	555.9	616.7	670.8
40°	447.8	478.7	506.7	570.4	621.6
42.5°	393.8	425.6	457.5	523.1	570.4
45°	341.7	371.6	414.0	473.9	514.4
47.5°	304.0	323.3	372.5	422.7	461.3
50°	278.9	286.6	332.0	376.4	408.3
52.5°	253.8	259.6	290.5	331.0	355.2
55°	230.7	235.5	252.9	286.6	302.1
57.5°	205.6	210.4	224.9	244.2	252.9
60°	185.3	189.2	200.7	203.6	201.7
62.5°	165.0	170.8	176.6	169.9	167.0
65°	145.7	154.4	153.5	144.8	142.8
67.5°	128.4	137.1	132.2	123.5	120.6
70°	111.0	119.7	112.9	104.2	101.3
72.5°	94.6	104.2	93.6	85.9	84.0
75°	79.1	86.9	76.2	70.5	67.6
77.5°	64.7	70.5	60.8	56.0	54.0
80°	50.2	54.0	46.3	43.4	42.5
82.5°	36.7	38.6	33.8	35.7	34.7
85°	24.1	25.1	26.1	27.0	24.1
87.5°	11.6	16.4	16.4	15.4	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)