

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: P1059110

Luminaire Tested: S123RDR-S1165D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059110
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D840-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

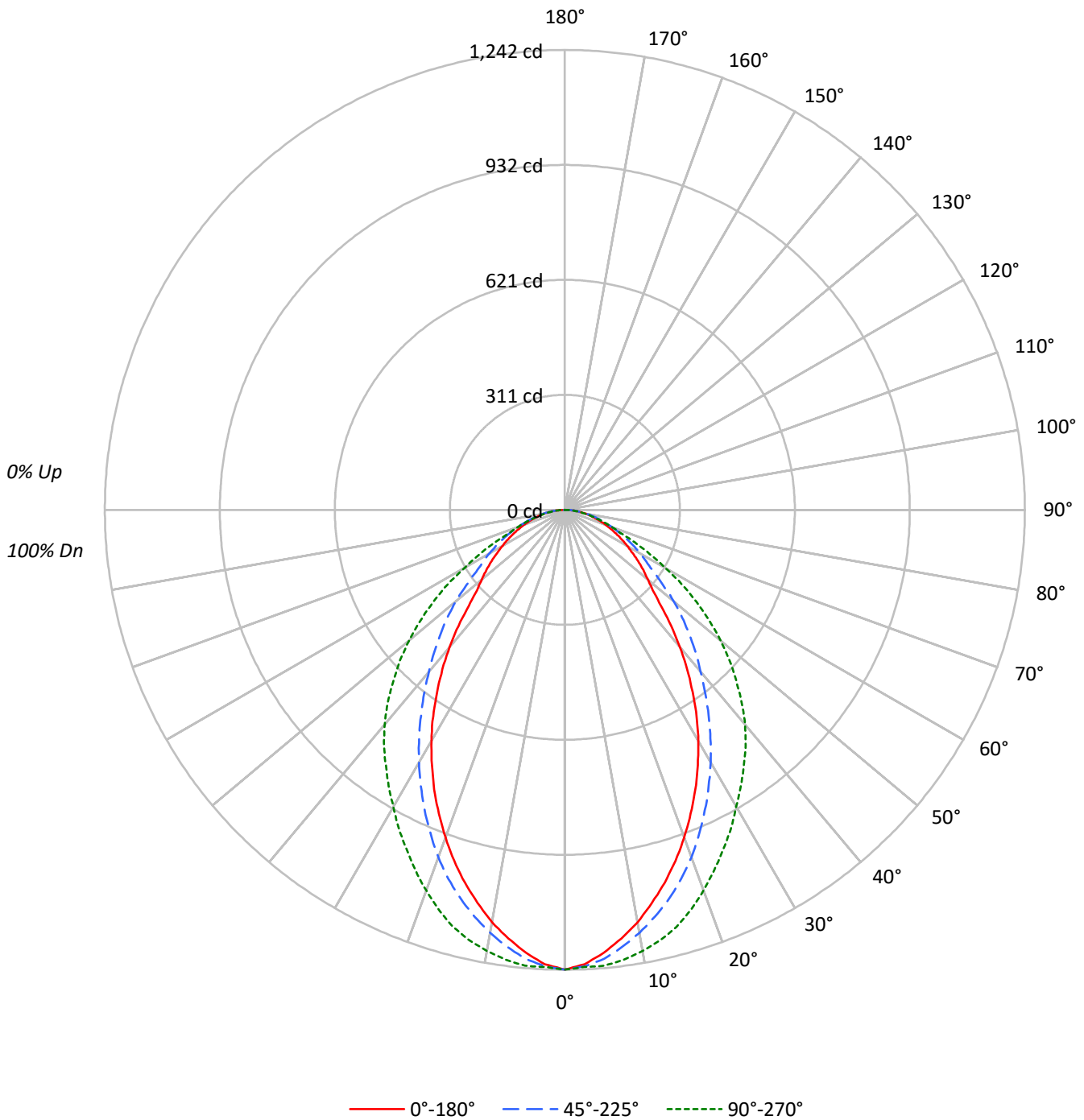
Lumens per Lamp: N/A
Luminaire Lumens: 2242.6 lumens
Efficiency: N/A
Efficacy: 53.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	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°	14578	14578	14578
5°	14154	14343	14566
10°	13484	13831	14422
15°	12668	13217	14172
20°	11768	12477	13677
25°	10806	11597	13107
30°	9769	10676	12552
35°	8617	9702	12080
40°	7407	8745	11601
45°	6091	7880	10877
50°	5343	7019	10024
55°	4946	5988	8879
60°	4547	5503	7348
65°	4246	5054	5782
70°	3996	4597	4597
75°	3766	4228	3961
80°	3543	3841	3347
85°	3328	3732	2546

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10877 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.8	5.1
10°-20°	307.7	13.7
20°-30°	417.3	18.6
30°-40°	436.2	19.5
40°-50°	378.4	16.9
50°-60°	281.5	12.6
60°-70°	180.6	8.1
70°-80°	96.9	4.3
80°-90°	29.3	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°	839.8	37.4
0°-40°	1276.1	56.9
0°-60°	1935.9	86.3
0°-90°	2242.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2242.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1242	1242	1242	1242	1242	
5°	1201	1221	1217	1226	1236	112
15°	1042	1067	1087	1131	1166	292
25°	834	860	895	955	1012	382
35°	601	630	677	763	843	375
45°	367	394	474	576	655	289
55°	242	247	292	376	434	216
65°	153	166	182	194	208	152
75°	83	96	93	89	87	88
85°	25	31	28	23	19	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1241.5	1241.5	1241.5	1241.5	1241.5
2.5°	1228.4	1245.9	1234.2	1234.2	1235.7
5°	1200.8	1221.1	1216.8	1225.5	1235.7
7.5°	1167.3	1189.1	1190.6	1211.0	1225.5
10°	1130.9	1152.7	1160.0	1189.1	1209.5
12.5°	1087.2	1112.0	1125.1	1161.5	1190.6
15°	1042.1	1066.9	1087.2	1130.9	1165.8
17.5°	994.1	1018.8	1045.0	1094.5	1132.4
20°	941.7	967.9	998.5	1047.9	1094.5
22.5°	887.8	915.5	947.5	1001.4	1053.8
25°	834.0	860.2	895.1	954.8	1011.6
27.5°	777.2	804.9	841.3	906.8	970.8
30°	720.5	748.1	787.4	857.3	925.7
32.5°	662.2	689.9	732.1	810.7	884.9
35°	601.1	630.2	676.8	762.7	842.7
37.5°	542.9	570.5	622.9	717.5	802.0
40°	483.2	512.3	570.5	672.4	756.8
42.5°	425.0	454.1	522.5	624.4	707.4
45°	366.8	394.4	474.5	576.4	655.0
47.5°	321.7	342.0	429.4	525.4	604.0
50°	292.5	299.8	384.2	475.9	548.7
52.5°	266.4	272.2	334.8	426.5	491.9
55°	241.6	247.4	292.5	375.5	433.7
57.5°	216.9	224.1	260.5	323.1	375.5
60°	193.6	202.3	234.3	276.5	312.9
62.5°	173.2	183.4	208.1	234.3	259.1
65°	152.8	165.9	181.9	193.6	208.1
67.5°	133.9	148.5	157.2	160.1	161.6
70°	116.4	131.0	133.9	133.9	133.9
72.5°	99.0	115.0	112.1	110.6	109.2
75°	83.0	96.1	93.2	88.8	87.3
77.5°	67.0	78.6	74.2	71.3	67.0
80°	52.4	61.1	56.8	53.9	49.5
82.5°	39.3	45.1	40.8	37.8	33.5
85°	24.7	30.6	27.7	23.3	18.9
87.5°	13.1	17.5	14.6	13.1	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)