

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: P1059119

Luminaire Tested: S123RDR-S1165D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059119
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-S1165D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

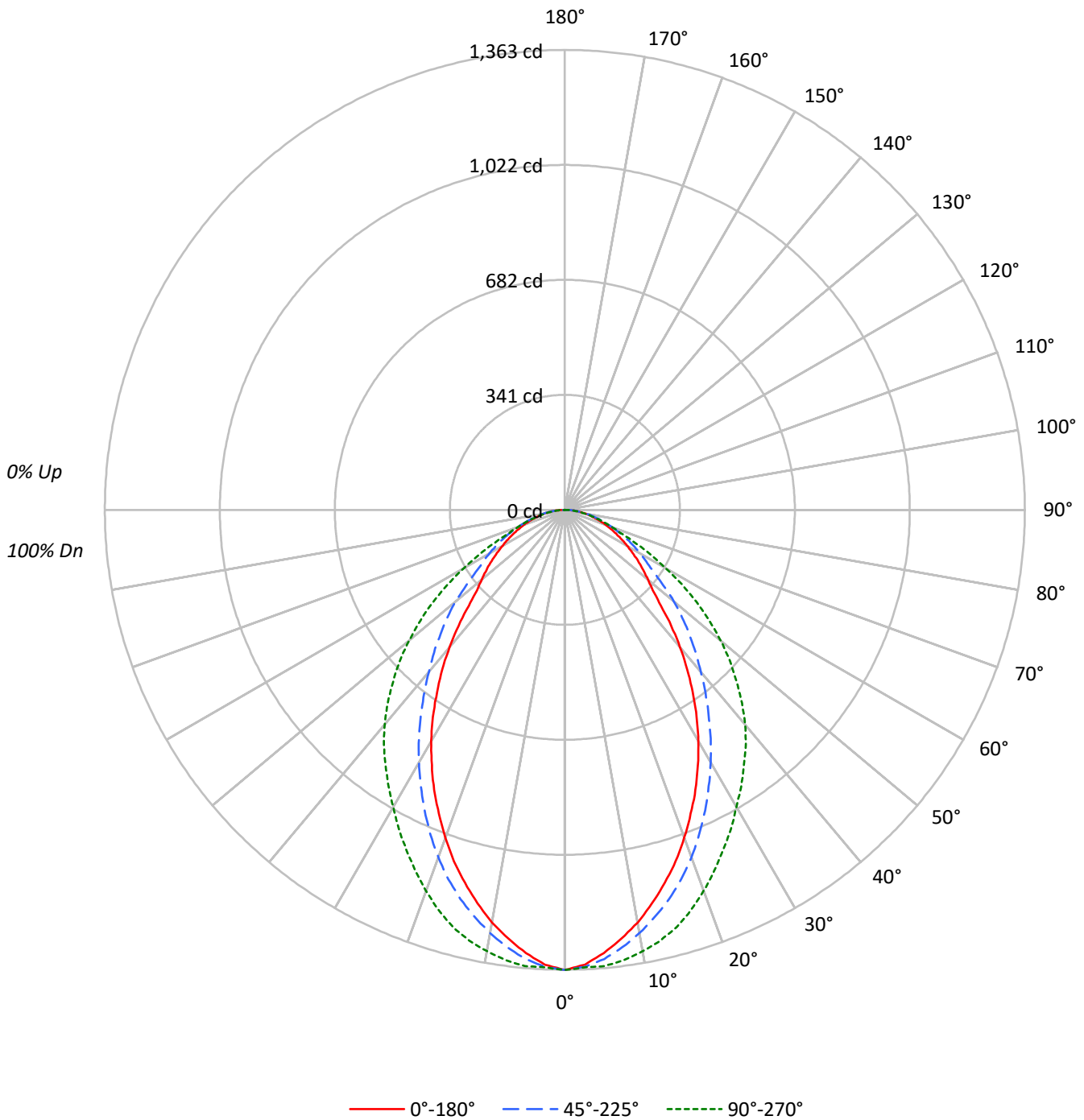
Lumens per Lamp: N/A
Luminaire Lumens: 2462.8 lumens
Efficiency: N/A
Efficacy: 58.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	16010	16010	16010
5°	15543	15750	15995
10°	14808	15189	15837
15°	13912	14515	15564
20°	12922	13702	15020
25°	11867	12736	14393
30°	10728	11724	13784
35°	9462	10654	13265
40°	8135	9605	12740
45°	6689	8654	11945
50°	5870	7709	11008
55°	5431	6578	9751
60°	4993	6043	8069
65°	4662	5551	6352
70°	4391	5047	5047
75°	4133	4641	4351
80°	3888	4213	3672
85°	3665	4096	2802

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11945 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.1	5.1
10°-20°	338.0	13.7
20°-30°	458.2	18.6
30°-40°	479.1	19.5
40°-50°	415.5	16.9
50°-60°	309.1	12.6
60°-70°	198.3	8.1
70°-80°	106.4	4.3
80°-90°	32.1	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°	922.3	37.4
0°-40°	1401.3	56.9
0°-60°	2126.0	86.3
0°-90°	2462.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2462.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1363	1363	1363	1363	1363	
5°	1319	1341	1336	1346	1357	123
15°	1144	1172	1194	1242	1280	321
25°	916	945	983	1048	1111	420
35°	660	692	743	838	925	412
45°	403	433	521	633	719	317
55°	265	272	321	412	476	237
65°	168	182	200	213	229	167
75°	91	106	102	98	96	97
85°	27	34	30	26	21	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1363.4	1363.4	1363.4	1363.4	1363.4
2.5°	1349.0	1368.2	1355.4	1355.4	1357.0
5°	1318.6	1341.0	1336.2	1345.8	1357.0
7.5°	1281.9	1305.9	1307.4	1329.8	1345.8
10°	1241.9	1265.9	1273.9	1305.9	1328.2
12.5°	1194.0	1221.1	1235.5	1275.5	1307.4
15°	1144.4	1171.6	1194.0	1241.9	1280.3
17.5°	1091.7	1118.8	1147.6	1202.0	1243.5
20°	1034.1	1062.9	1096.5	1150.8	1202.0
22.5°	975.0	1005.4	1040.5	1099.7	1157.2
25°	915.9	944.6	983.0	1048.5	1110.9
27.5°	853.5	883.9	923.8	995.8	1066.1
30°	791.2	821.6	864.7	941.4	1016.6
32.5°	727.2	757.6	804.0	890.3	971.8
35°	660.1	692.1	743.2	837.5	925.4
37.5°	596.2	626.6	684.1	788.0	880.7
40°	530.7	562.6	626.6	738.4	831.1
42.5°	466.7	498.7	573.8	685.7	776.8
45°	402.8	433.2	521.1	632.9	719.3
47.5°	353.2	375.6	471.5	577.0	663.3
50°	321.3	329.3	422.0	522.7	602.6
52.5°	292.5	298.9	367.6	468.3	540.2
55°	265.3	271.7	321.3	412.4	476.3
57.5°	238.2	246.1	286.1	354.8	412.4
60°	212.6	222.2	257.3	303.7	343.6
62.5°	190.2	201.4	228.6	257.3	284.5
65°	167.8	182.2	199.8	212.6	228.6
67.5°	147.0	163.0	172.6	175.8	177.4
70°	127.9	143.9	147.0	147.0	147.0
72.5°	108.7	126.3	123.1	121.5	119.9
75°	91.1	105.5	102.3	97.5	95.9
77.5°	73.5	86.3	81.5	78.3	73.5
80°	57.5	67.1	62.3	59.1	54.3
82.5°	43.2	49.5	44.8	41.6	36.8
85°	27.2	33.6	30.4	25.6	20.8
87.5°	14.4	19.2	16.0	14.4	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)