

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: P1059096

Luminaire Tested: S123RDR-S1165D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059096
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D835-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

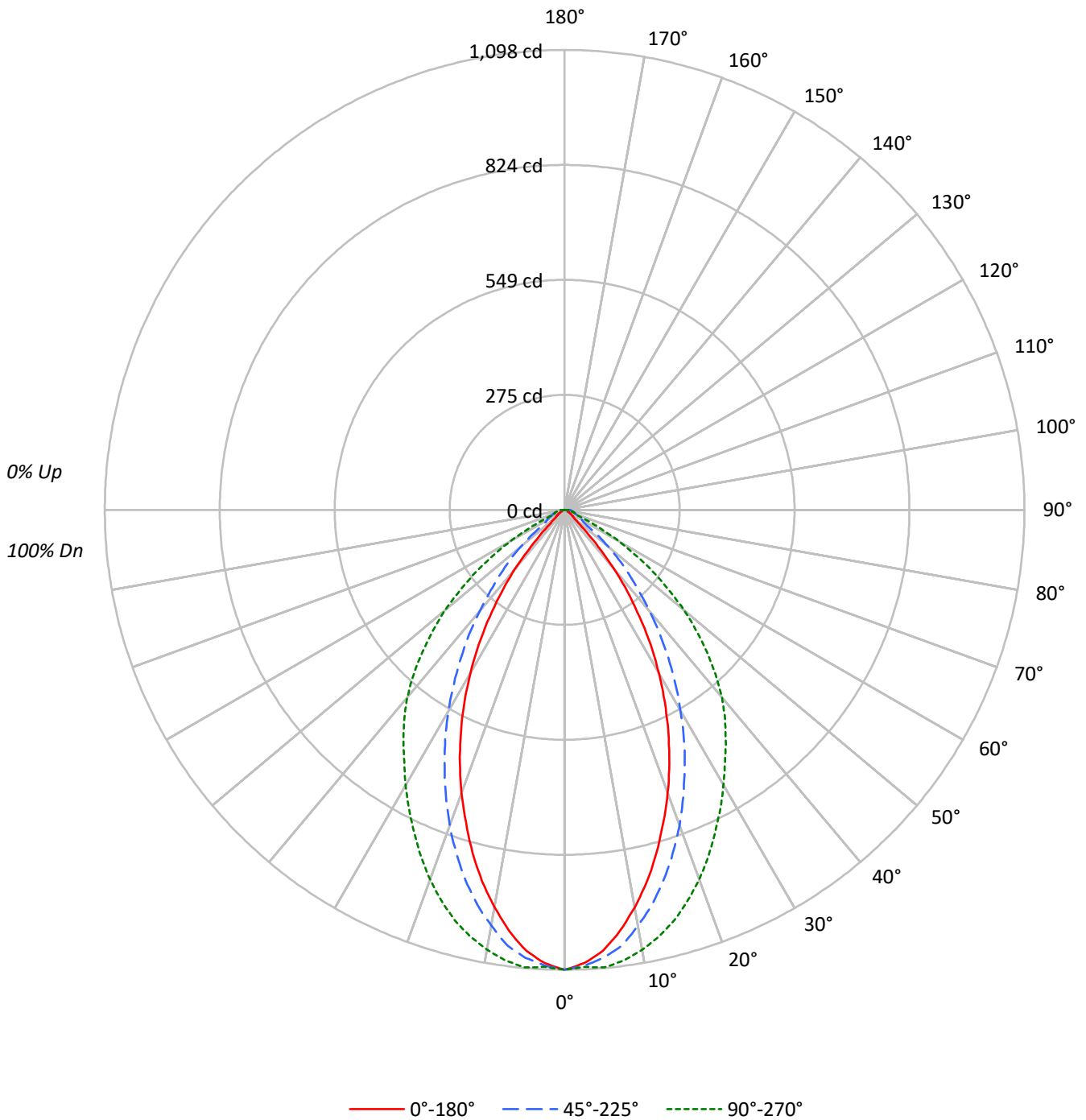
Lumens per Lamp: N/A
Luminaire Lumens: 1318.1 lumens
Efficiency: N/A
Efficacy: 31.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: S123RDR-S1165D835-X4F0-XX-UDD-BVL-W

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	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12891	12891	12891
5°	12447	12651	12924
10°	11491	12024	12712
15°	10312	11118	12329
20°	8996	10023	11735
25°	7589	8784	11009
30°	6103	7512	10289
35°	4467	6183	9616
40°	2787	4821	8957
45°	1055	3594	7978
50°	501	2477	6799
55°	385	1359	5257
60°	270	1151	3455
65°	200	1003	1442
70°	199	941	941
75°	263	980	980
80°	392	1170	1075
85°	781	1940	1549

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7978 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.8	7.6
10°-20°	258.4	19.6
20°-30°	319.9	24.3
30°-40°	286.8	21.8
40°-50°	188.0	14.3
50°-60°	94.1	7.1
60°-70°	36.7	2.8
70°-80°	20.7	1.6
80°-90°	12.8	1.0
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°	679.1	51.5
0°-40°	965.8	73.3
0°-60°	1248.0	94.7
0°-90°	1318.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1318.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1098	1098	1098	1098	1098	
5°	1056	1073	1073	1085	1096	98
15°	848	883	915	975	1014	236
25°	586	622	678	775	850	267
35°	312	353	431	561	671	194
45°	64	102	216	371	480	60
55°	19	23	66	182	257	17
65°	7	22	36	48	52	7
75°	6	22	22	22	22	6
85°	6	14	14	14	12	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1097.8	1097.8	1097.8	1097.8	1097.8
2.5°	1083.4	1099.3	1089.2	1090.6	1092.1
5°	1056.0	1073.3	1073.3	1084.9	1096.4
7.5°	1014.2	1034.4	1048.8	1069.0	1084.9
10°	963.7	988.2	1008.4	1044.5	1066.1
12.5°	908.9	939.1	965.1	1012.7	1043.0
15°	848.3	882.9	914.6	975.2	1014.2
17.5°	783.3	818.0	859.8	930.5	978.1
20°	719.9	754.5	802.1	881.4	939.1
22.5°	653.5	689.6	740.1	828.1	895.9
25°	585.7	621.8	678.0	774.7	849.7
27.5°	517.9	554.0	617.4	722.8	805.0
30°	450.1	486.2	554.0	666.5	758.8
32.5°	382.3	421.2	491.9	614.6	712.7
35°	311.6	353.4	431.3	561.2	670.8
37.5°	246.7	285.6	373.6	515.0	629.0
40°	181.8	223.6	314.5	470.3	584.3
42.5°	118.3	163.0	261.1	421.2	533.8
45°	63.5	102.4	216.4	370.8	480.4
47.5°	34.6	56.3	174.6	317.4	425.6
50°	27.4	31.7	135.6	271.2	372.2
52.5°	23.1	26.0	96.7	227.9	313.0
55°	18.8	23.1	66.4	181.8	256.8
57.5°	15.9	20.2	51.9	141.4	200.5
60°	11.5	17.3	49.0	103.9	147.1
62.5°	8.7	18.8	43.3	72.1	96.7
65°	7.2	21.6	36.1	47.6	51.9
67.5°	5.8	23.1	31.7	30.3	30.3
70°	5.8	21.6	27.4	26.0	27.4
72.5°	5.8	23.1	24.5	23.1	24.5
75°	5.8	21.6	21.6	21.6	21.6
77.5°	5.8	20.2	20.2	18.8	18.8
80°	5.8	17.3	17.3	17.3	15.9
82.5°	5.8	15.9	15.9	15.9	13.0
85°	5.8	14.4	14.4	14.4	11.5
87.5°	4.3	13.0	14.4	13.0	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)