

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P242890

Luminaire Tested: S125RDRP-S850D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242890
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-S850D930-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

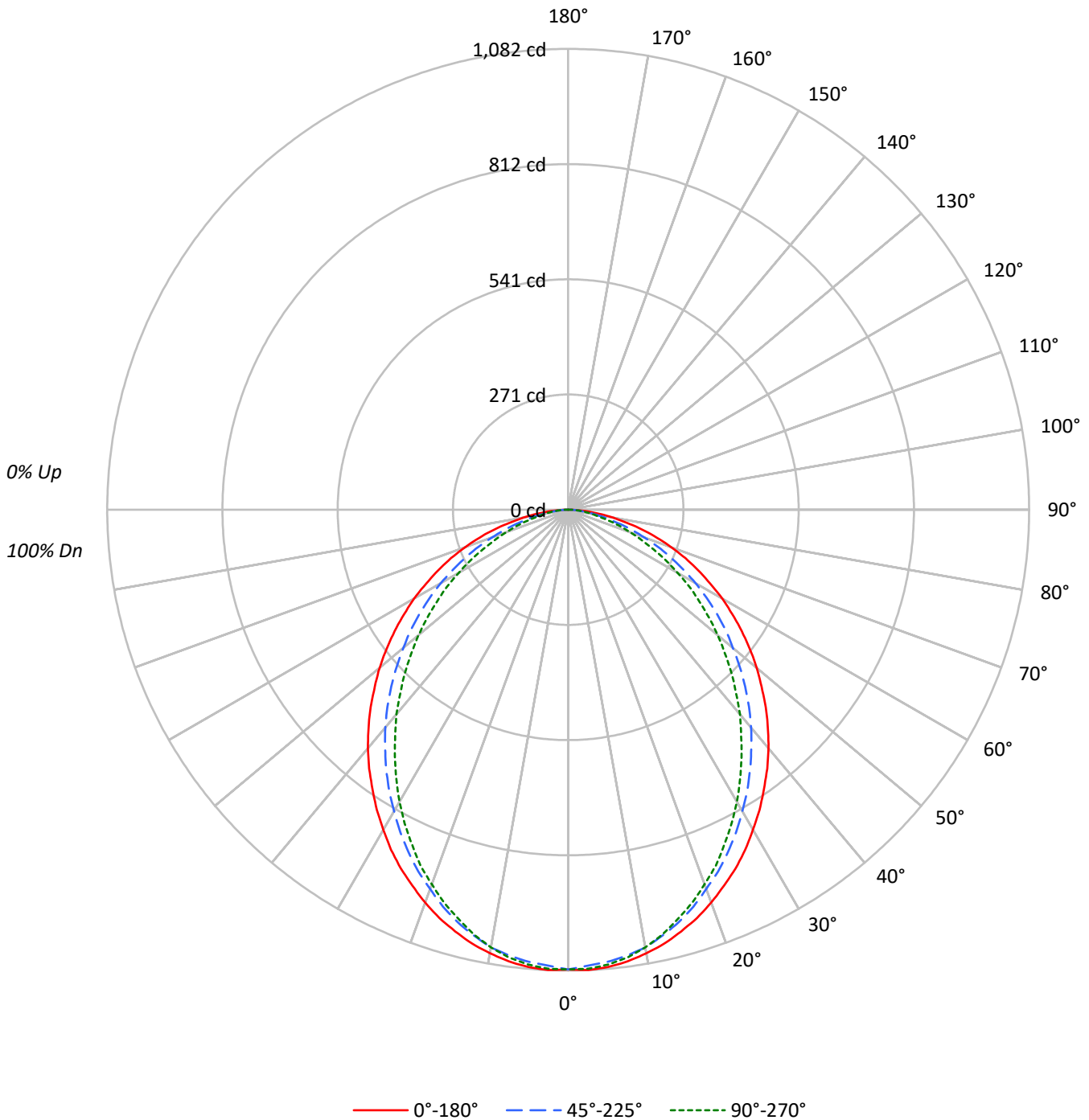
Lumens per Lamp: N/A
Luminaire Lumens: 2550.4 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): 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

TEST NUMBER: P242890

CATALOG NUMBER: S125RDRP-S850D930-X4F0-XX-UDD-F-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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87					85				
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74					72				
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64					61				
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43					41				
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38					36				
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34					33				
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31					29				
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29					27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7672	7672	7672
5°	7690	7603	7649
10°	7631	7532	7532
15°	7541	7379	7319
20°	7424	7166	7079
25°	7288	6956	6803
30°	7119	6711	6497
35°	6946	6459	6154
40°	6785	6195	5817
45°	6589	5900	5450
50°	6391	5581	5066
55°	6162	5274	4658
60°	5933	4903	4219
65°	5662	4470	3715
70°	5353	3930	3202
75°	4926	3315	2664
80°	4339	2603	2235
85°	3653	2128	1998

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6589 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.6	4.0
10°-20°	283.9	11.1
20°-30°	411.7	16.1
30°-40°	469.0	18.4
40°-50°	457.2	17.9
50°-60°	384.7	15.1
60°-70°	269.6	10.6
70°-80°	138.2	5.4
80°-90°	34.5	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°	797.2	31.3
0°-40°	1266.2	49.6
0°-60°	2108.1	82.7
0°-90°	2550.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2550.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1080	1080	1080	1080	1080	
5°	1078	1075	1066	1074	1072	102
15°	1025	1020	1003	1002	995	289
25°	929	917	887	876	868	428
35°	801	781	744	721	709	501
45°	656	632	587	554	542	506
55°	497	471	426	389	376	445
65°	337	309	266	233	221	333
75°	179	155	121	103	97	190
85°	45	30	26	25	24	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1079.5	1079.5	1079.5	1079.5	1079.5
2.5°	1081.9	1079.5	1071.3	1079.5	1078.6
5°	1077.8	1074.6	1065.6	1073.7	1072.1
7.5°	1069.7	1066.4	1055.8	1062.3	1060.7
10°	1057.4	1055.0	1043.6	1046.0	1043.6
12.5°	1043.6	1040.3	1024.0	1025.6	1021.6
15°	1024.8	1019.9	1002.8	1002.0	994.7
17.5°	1005.3	997.9	977.5	973.5	967.8
20°	981.6	973.5	947.4	943.3	936.0
22.5°	955.5	947.4	919.7	910.7	905.0
25°	929.4	917.2	887.0	876.4	867.5
27.5°	900.1	885.4	853.6	839.8	830.8
30°	867.5	852.0	817.7	799.0	791.7
32.5°	835.7	816.9	781.9	760.7	750.9
35°	800.6	781.1	744.4	720.7	709.3
37.5°	767.2	743.6	706.0	678.3	666.9
40°	731.3	706.9	667.7	636.7	627.0
42.5°	693.8	668.5	627.8	598.4	582.9
45°	655.5	631.9	587.0	554.4	542.2
47.5°	615.6	591.1	546.3	512.8	499.0
50°	578.0	551.1	504.7	470.4	458.2
52.5°	537.3	509.6	466.4	428.8	416.6
55°	497.3	471.2	425.6	388.9	375.9
57.5°	456.6	428.8	384.8	348.9	337.5
60°	417.4	388.9	344.9	309.0	296.8
62.5°	375.9	348.9	304.1	271.5	259.3
65°	336.7	309.0	265.8	233.2	220.9
67.5°	297.6	269.9	228.3	197.3	187.5
70°	257.6	229.9	189.1	163.9	154.1
72.5°	218.5	191.6	154.1	131.3	125.6
75°	179.4	154.9	120.7	102.7	97.0
77.5°	139.4	119.8	91.3	77.5	72.6
80°	106.0	86.4	63.6	56.3	54.6
82.5°	73.4	56.3	42.4	39.9	39.1
85°	44.8	30.2	26.1	25.3	24.5
87.5°	18.8	13.0	12.2	12.2	11.4
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	18.42	19.99	18.78	20.31	20.62	16.85	18.43	17.21	18.74	19.05
	3H	20.20	21.62	20.58	21.95	22.31	18.16	19.58	18.54	19.91	20.27
	4H	20.87	22.20	21.26	22.55	22.92	18.57	19.91	18.97	20.26	20.63
	6H	21.33	22.57	21.75	22.93	23.32	18.83	20.06	19.24	20.43	20.82
	8H	21.48	22.66	21.91	23.05	23.45	18.91	20.09	19.34	20.48	20.88
	12H	21.58	22.71	22.01	23.09	23.52	18.97	20.09	19.40	20.47	20.90
4H	2H	18.81	20.14	19.21	20.49	20.87	17.54	18.87	17.94	19.22	19.60
	3H	20.79	21.90	21.20	22.30	22.70	19.04	20.15	19.45	20.55	20.95
	4H	21.58	22.58	22.01	22.99	23.43	19.53	20.54	19.97	20.95	21.39
	6H	22.17	23.04	22.63	23.48	23.94	19.88	20.75	20.33	21.19	21.65
	8H	22.36	23.18	22.82	23.62	24.09	19.99	20.80	20.45	21.25	21.71
	12H	22.50	23.23	22.98	23.71	24.18	20.07	20.80	20.56	21.28	21.75
8H	4H	21.70	22.52	22.16	22.96	23.43	19.85	20.66	20.31	21.11	21.57
	6H	22.38	23.05	22.87	23.54	24.02	20.27	20.95	20.77	21.44	21.91
	8H	22.62	23.23	23.14	23.74	24.23	20.43	21.04	20.94	21.55	22.03
	12H	22.82	23.36	23.33	23.85	24.41	20.57	21.11	21.08	21.60	22.16
12H	4H	21.70	22.43	22.18	22.90	23.37	19.89	20.62	20.37	21.09	21.56
	6H	22.37	22.98	22.88	23.49	23.97	20.32	20.93	20.83	21.44	21.93
	8H	22.66	23.19	23.17	23.69	24.25	20.53	21.07	21.04	21.56	22.12