

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: P243652

Luminaire Tested: S125DRP-H850D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243652  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-51)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125DRP-H850D935-X4F0-XX-UDD-F-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

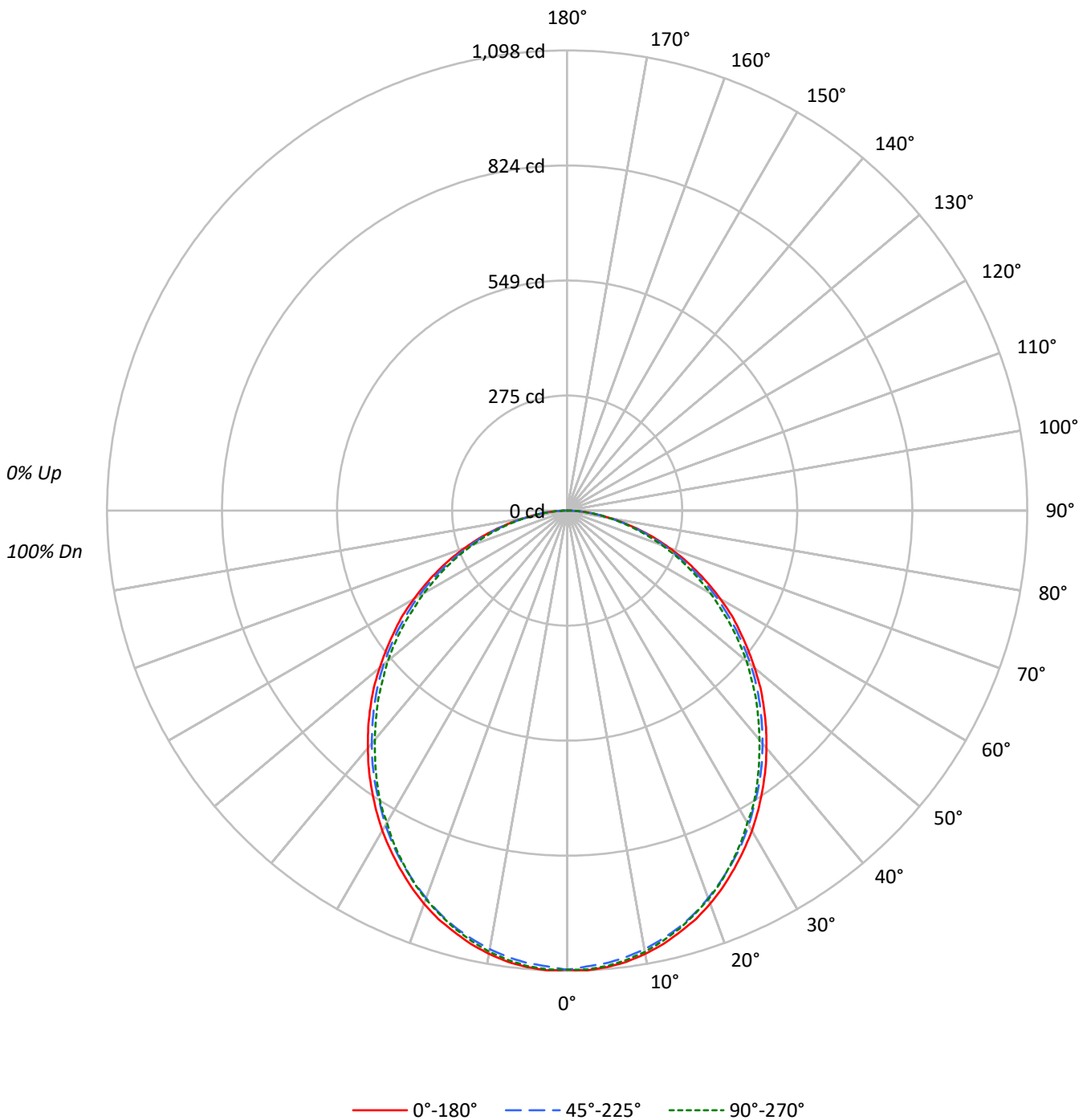
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2828.4 lumens  
Efficiency: N/A  
Efficacy: 119.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.6  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7788	7788	7788
5°	7800	7732	7783
10°	7751	7670	7716
15°	7660	7577	7601
20°	7551	7442	7461
25°	7395	7288	7275
30°	7238	7112	7060
35°	7051	6926	6863
40°	6862	6727	6624
45°	6674	6529	6408
50°	6453	6320	6178
55°	6235	6067	5907
60°	5999	5828	5622
65°	5718	5516	5326
70°	5363	5162	4996
75°	4946	4789	4569
80°	4310	4277	4179
85°	3735	3735	3539

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6674 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.4	3.7
10°-20°	291.7	10.3
20°-30°	430.0	15.2
30°-40°	500.8	17.7
40°-50°	501.8	17.7
50°-60°	438.7	15.5
60°-70°	325.6	11.5
70°-80°	184.7	6.5
80°-90°	51.8	1.8
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°	825.1	29.2
0°-40°	1325.9	46.9
0°-60°	2266.4	80.1
0°-90°	2828.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2828.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1096	1096	1096	1096	1096	
5°	1093	1092	1084	1092	1091	104
15°	1041	1039	1030	1035	1033	294
25°	943	940	929	932	928	434
35°	813	808	798	793	791	509
45°	664	662	650	640	638	512
55°	503	502	490	479	477	451
65°	340	338	328	321	317	337
75°	180	177	174	171	166	191
85°	46	46	46	44	43	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1095.7	1095.7	1095.7	1095.7	1095.7
2.5°	1098.1	1096.5	1088.5	1096.5	1095.7
5°	1093.3	1091.7	1083.7	1091.7	1090.9
7.5°	1086.1	1083.7	1074.8	1082.9	1081.2
10°	1074.0	1072.4	1062.8	1069.2	1069.2
12.5°	1059.5	1057.1	1047.5	1053.1	1052.3
15°	1041.1	1039.4	1029.8	1035.4	1033.0
17.5°	1021.8	1017.7	1008.9	1013.7	1010.5
20°	998.4	995.2	984.0	988.0	986.4
22.5°	971.9	967.9	957.4	959.9	959.1
25°	943.0	939.8	929.3	931.7	927.7
27.5°	913.2	909.2	899.6	899.6	895.5
30°	881.9	877.9	866.6	866.6	860.2
32.5°	848.1	844.9	831.2	830.4	828.8
35°	812.7	807.9	798.3	793.4	791.0
37.5°	777.4	773.4	762.9	756.5	752.5
40°	739.6	737.2	725.1	719.5	713.9
42.5°	702.6	700.2	687.3	677.7	675.3
45°	664.0	662.4	649.6	639.9	637.5
47.5°	625.4	623.8	611.0	600.5	596.5
50°	583.6	583.6	571.6	561.1	558.7
52.5°	543.4	542.6	530.6	520.1	517.7
55°	503.2	502.4	489.6	479.1	476.7
57.5°	465.5	460.6	449.4	441.3	433.3
60°	422.0	419.6	410.0	399.5	395.5
62.5°	381.9	378.6	369.0	360.1	354.5
65°	340.0	337.6	328.0	320.8	316.7
67.5°	300.7	297.4	287.8	282.2	279.0
70°	258.1	255.6	248.4	241.2	240.4
72.5°	220.3	217.1	213.0	206.6	203.4
75°	180.1	176.9	174.4	171.2	166.4
77.5°	141.5	139.9	138.3	135.9	133.4
80°	105.3	105.3	104.5	102.9	102.1
82.5°	74.8	75.6	73.2	71.5	71.5
85°	45.8	45.8	45.8	44.2	43.4
87.5°	22.5	20.1	20.1	18.5	18.5
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	18.44	20.05	18.80	20.37	20.68	18.10	19.72	18.47	20.03	20.35
	3H	20.20	21.66	20.57	21.98	22.34	19.82	21.27	20.19	21.60	21.96
	4H	20.85	22.22	21.25	22.57	22.94	20.45	21.83	20.85	22.17	22.55
	6H	21.31	22.58	21.72	22.95	23.34	20.93	22.20	21.34	22.57	22.96
	8H	21.46	22.67	21.88	23.06	23.46	21.08	22.30	21.51	22.69	23.09
	12H	21.56	22.72	21.99	23.10	23.53	21.18	22.35	21.61	22.73	23.16
4H	2H	19.01	20.38	19.41	20.73	21.11	18.74	20.12	19.14	20.47	20.84
	3H	20.99	22.14	21.40	22.54	22.94	20.68	21.83	21.08	22.22	22.62
	4H	21.77	22.81	22.20	23.22	23.66	21.44	22.48	21.87	22.90	23.33
	6H	22.36	23.27	22.81	23.71	24.16	22.04	22.95	22.50	23.39	23.85
	8H	22.56	23.41	23.02	23.85	24.32	22.24	23.09	22.70	23.54	24.00
	12H	22.70	23.47	23.18	23.94	24.41	22.39	23.15	22.87	23.63	24.10
8H	4H	22.05	22.90	22.51	23.34	23.81	21.76	22.61	22.22	23.06	23.52
	6H	22.76	23.47	23.25	23.96	24.43	22.48	23.19	22.98	23.68	24.16
	8H	23.03	23.67	23.54	24.17	24.66	22.76	23.39	23.27	23.90	24.38
	12H	23.25	23.81	23.76	24.31	24.87	22.97	23.53	23.48	24.02	24.58
12H	4H	22.08	22.84	22.56	23.32	23.79	21.80	22.56	22.28	23.04	23.51
	6H	22.81	23.45	23.32	23.95	24.44	22.54	23.18	23.05	23.69	24.17
	8H	23.14	23.70	23.65	24.19	24.75	22.87	23.43	23.38	23.92	24.48