

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: P242839

Luminaire Tested: S125DRP-S1270D927-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242839  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125DRP-S1270D927-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

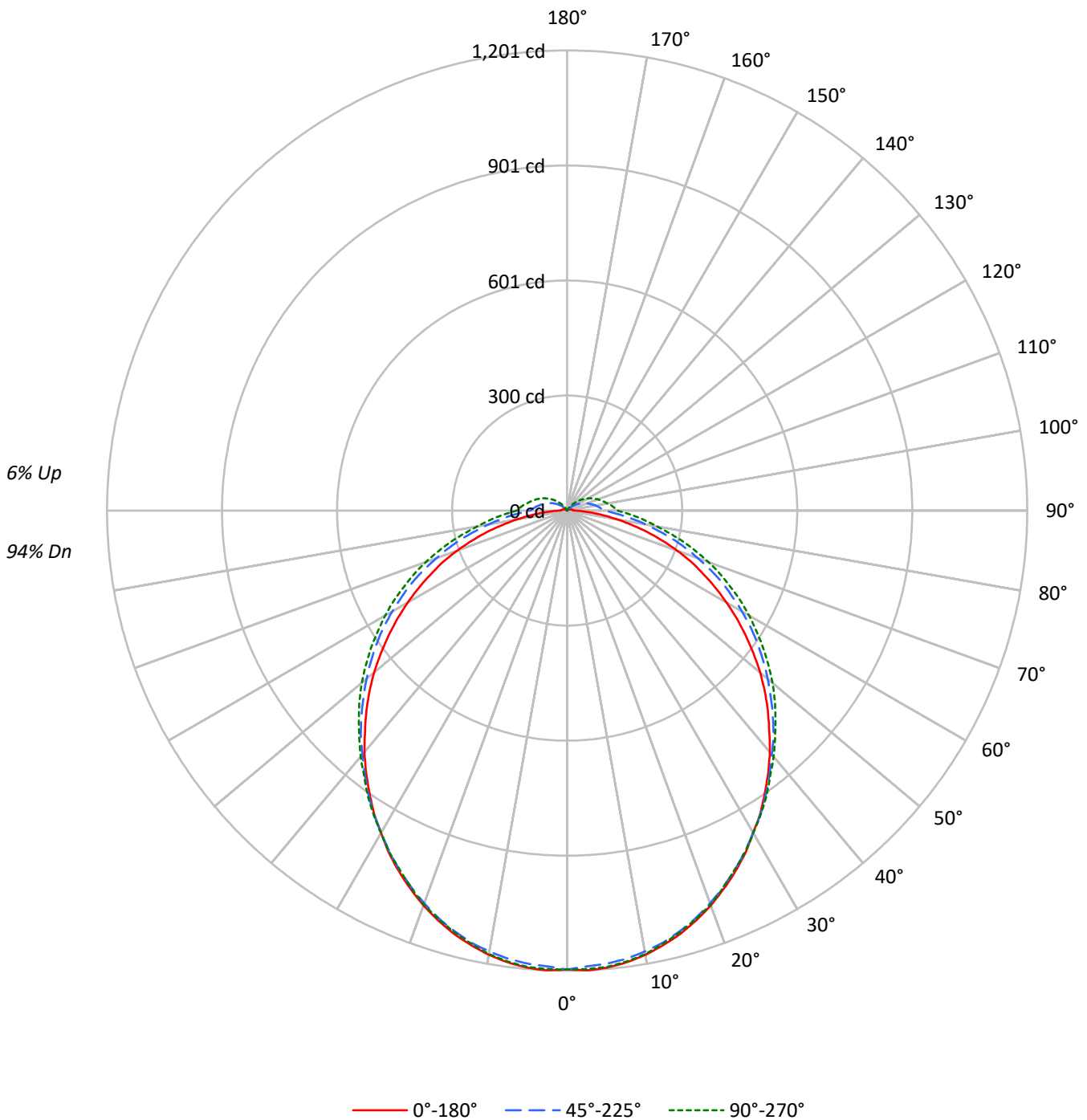
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3709.8 lumens  
Efficiency: N/A  
Efficacy: 90.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')  
CIE Type: Direct  
  
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

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

	0°	45°	90°
0°	8512	8512	8512
5°	8528	8347	8371
10°	8467	8191	8174
15°	8366	8006	7927
20°	8230	7780	7680
25°	8068	7537	7378
30°	7871	7272	7103
35°	7687	7027	6852
40°	7500	6769	6597
45°	7289	6548	6371
50°	7088	6308	6169
55°	6845	6080	5933
60°	6581	5821	5692
65°	6303	5548	5419
70°	5990	5178	5138
75°	5491	4818	4794
80°	4841	4381	4415
85°	4229	4065	4261

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7289 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.3	3.1
10°-20°	321.7	8.7
20°-30°	478.4	12.9
30°-40°	566.5	15.3
40°-50°	585.7	15.8
50°-60°	539.5	14.5
60°-70°	436.2	11.8
70°-80°	291.8	7.9
80°-90°	150.8	4.1
90°-100°	85.0	2.3
100°-110°	62.6	1.7
110°-120°	41.9	1.1
120°-130°	23.7	0.6
130°-140°	10.4	0.3
140°-150°	2.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	913.4	24.6
0°-40°	1479.9	39.9
0°-60°	2605.2	70.2
0°-90°	3484.1	93.9
90°-120°	189.6	5.1
90°-150°	225.7	6.1
90°-180°	226.0	6.1
0°-180°	3709.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1198	1195	1187	1196	1195	114
15°	1144	1145	1136	1144	1139	322
25°	1039	1043	1036	1040	1034	478
35°	899	908	904	908	908	563
45°	741	754	760	768	769	572
55°	569	588	607	620	625	509
65°	392	419	447	465	470	389
75°	216	247	284	308	314	229
85°	65	103	144	170	180	67
90°	19	56	96	123	132	13
95°	15	46	86	112	120	12
105°	11	29	65	88	96	11
115°	7	15	46	67	74	7
125°	5	4	27	46	52	4
135°	2	1	9	25	30	2
145°	1	0	0	6	11	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1197.6	1197.6	1197.6	1197.6	1197.6
2.5°	1201.1	1198.7	1190.5	1198.7	1197.6
5°	1197.6	1195.2	1187.0	1196.4	1195.2
7.5°	1189.3	1188.2	1179.9	1188.2	1187.0
10°	1177.6	1177.6	1168.2	1176.4	1175.2
12.5°	1161.2	1162.3	1155.3	1161.2	1157.6
15°	1143.5	1144.7	1136.5	1143.5	1138.9
17.5°	1121.2	1123.6	1115.4	1121.2	1117.7
20°	1096.6	1098.9	1090.7	1094.2	1094.2
22.5°	1068.4	1073.1	1063.7	1068.4	1064.9
25°	1039.1	1042.6	1035.5	1040.2	1034.4
27.5°	1007.4	1012.1	1003.8	1007.4	1005.0
30°	971.0	978.0	971.0	973.3	972.1
32.5°	938.1	944.0	939.3	941.6	940.4
35°	899.3	907.6	904.0	907.6	907.6
37.5°	861.8	868.8	867.6	872.3	871.2
40°	823.0	832.4	831.2	835.9	838.3
42.5°	780.8	793.7	797.2	803.1	803.1
45°	740.8	753.8	759.6	767.8	769.0
47.5°	699.7	711.5	720.9	732.6	735.0
50°	657.5	670.4	683.3	696.2	699.7
52.5°	612.9	629.3	645.7	659.8	662.2
55°	569.4	588.2	607.0	619.9	624.6
57.5°	524.8	547.1	568.3	582.3	585.9
60°	480.2	503.7	527.2	544.8	548.3
62.5°	436.8	460.2	486.1	506.0	510.7
65°	392.1	419.1	447.3	464.9	469.6
67.5°	351.0	376.9	405.1	426.2	432.1
70°	305.3	332.3	362.8	385.1	392.1
72.5°	260.6	288.8	322.9	347.5	352.2
75°	216.0	246.6	284.1	307.6	313.5
77.5°	172.6	207.8	243.0	268.9	273.6
80°	132.7	167.9	207.8	233.6	238.3
82.5°	96.3	133.8	174.9	199.6	209.0
85°	64.6	103.3	144.4	170.2	179.6
87.5°	41.1	78.7	118.6	145.6	153.8
90°	18.8	56.4	96.3	123.3	131.5
92.5°	16.4	50.5	91.6	117.4	125.6
95°	15.3	45.8	85.7	111.5	119.8
97.5°	14.1	42.3	81.0	105.7	113.9
100°	12.9	37.6	75.1	99.8	106.8
102.5°	11.7	34.0	70.4	93.9	101.0
105°	10.6	29.4	64.6	88.1	96.3
107.5°	9.4	25.8	59.9	83.4	90.4
110°	8.2	22.3	55.2	77.5	85.7



TEST NUMBER: P242839

CATALOG NUMBER: S125DRP-S1270D927-X4F0-XX-UDD-D-W

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	8.2	18.8	50.5	71.6	79.8
115°	7.0	15.3	45.8	66.9	74.0
117.5°	5.9	11.7	41.1	61.1	69.3
120°	5.9	9.4	36.4	56.4	63.4
122.5°	4.7	5.9	31.7	50.5	57.5
125°	4.7	3.5	27.0	45.8	51.7
127.5°	3.5	2.3	22.3	39.9	47.0
130°	3.5	2.3	18.8	35.2	41.1
132.5°	2.3	2.3	14.1	30.5	35.2
135°	2.3	1.2	9.4	24.7	30.5
137.5°	2.3	1.2	5.9	20.0	24.7
140°	1.2	1.2	2.3	15.3	20.0
142.5°	1.2	0.0	0.0	10.6	15.3
145°	1.2	0.0	0.0	5.9	10.6
147.5°	0.0	0.0	0.0	2.3	4.7
150°	0.0	0.0	0.0	0.0	1.2
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	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	17.36	18.89	17.82	19.33	19.79	18.40	19.93	18.86	20.37	20.83
	3H	19.01	20.40	19.48	20.85	21.36	20.58	21.97	21.05	22.42	22.93
	4H	19.58	20.90	20.07	21.36	21.88	21.54	22.86	22.03	23.33	23.85
	6H	19.96	21.18	20.46	21.66	22.20	22.44	23.66	22.94	24.14	24.68
	8H	20.06	21.23	20.58	21.74	22.28	22.87	24.04	23.39	24.55	25.09
	12H	20.12	21.25	20.65	21.75	22.32	23.33	24.45	23.85	24.95	25.52
4H	2H	18.12	19.44	18.61	19.91	20.42	18.93	20.25	19.43	20.72	21.24
	3H	20.00	21.12	20.50	21.63	22.17	21.33	22.44	21.83	22.96	23.50
	4H	20.70	21.72	21.23	22.24	22.82	22.44	23.46	22.96	23.98	24.56
	6H	21.21	22.11	21.75	22.66	23.25	23.50	24.40	24.05	24.95	25.54
	8H	21.36	22.20	21.91	22.75	23.35	24.02	24.87	24.57	25.41	26.02
	12H	21.46	22.22	22.03	22.80	23.41	24.58	25.34	25.15	25.92	26.53
8H	4H	21.18	22.03	21.73	22.58	23.18	22.70	23.54	23.25	24.09	24.69
	6H	21.85	22.56	22.43	23.15	23.76	23.92	24.63	24.50	25.22	25.83
	8H	22.09	22.73	22.68	23.33	23.95	24.56	25.20	25.16	25.80	26.42
	12H	22.27	22.84	22.87	23.43	24.12	25.27	25.84	25.87	26.43	27.12
12H	4H	21.28	22.05	21.86	22.62	23.23	22.72	23.48	23.29	24.06	24.66
	6H	22.01	22.65	22.61	23.25	23.88	23.97	24.61	24.57	25.21	25.83
	8H	22.33	22.90	22.93	23.49	24.18	24.68	25.24	25.27	25.84	26.52