

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: P242838

Luminaire Tested: S125DRP-S1090D927-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242838  
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-S1090D927-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: -

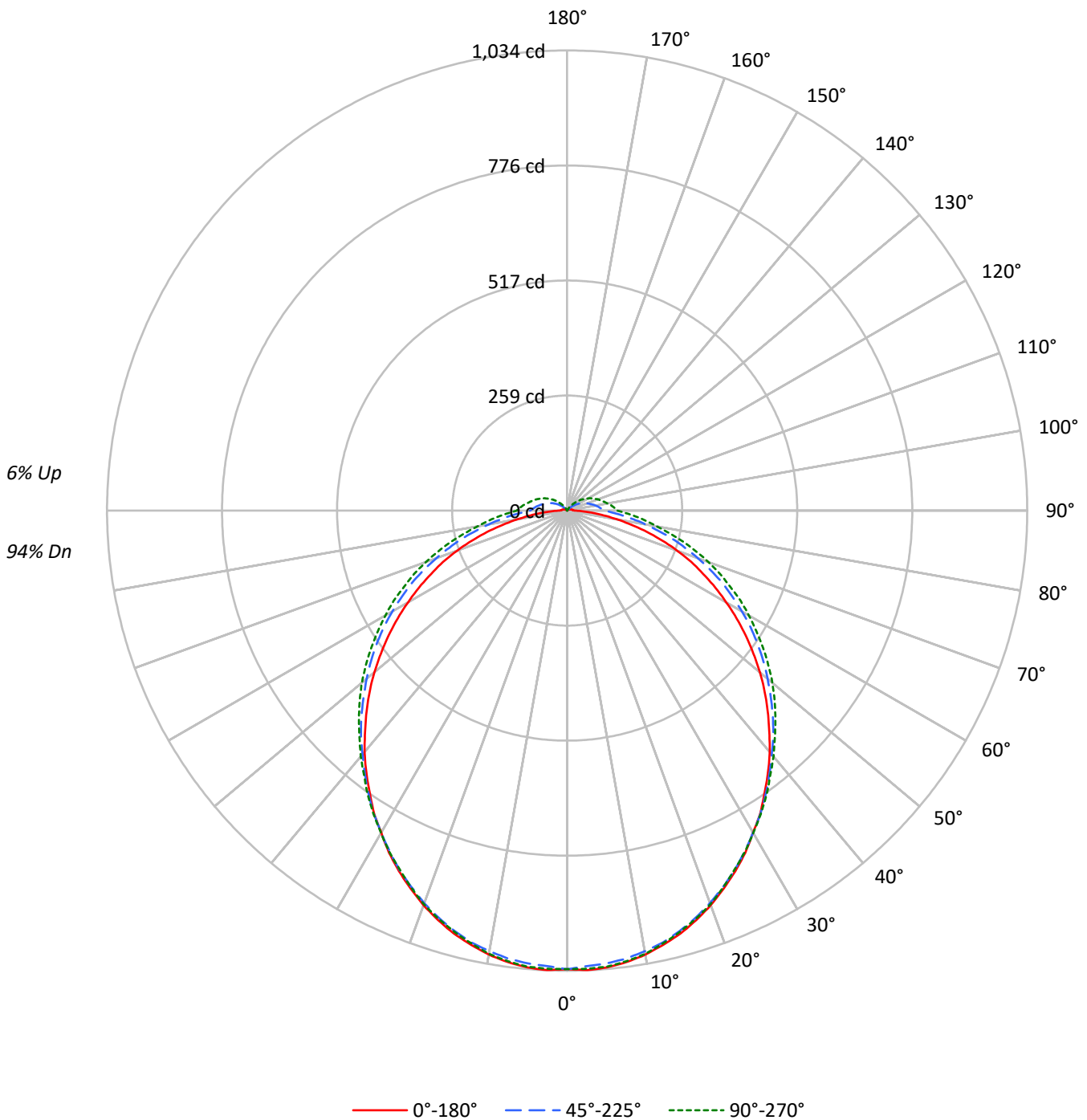
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3192.1 lumens  
Efficiency: N/A  
Efficacy: 91.7 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): 34.8  
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°	7323	7323	7323
5°	7338	7182	7203
10°	7285	7048	7033
15°	7199	6889	6821
20°	7081	6694	6608
25°	6942	6485	6348
30°	6773	6257	6113
35°	6614	6047	5895
40°	6454	5824	5677
45°	6273	5634	5482
50°	6099	5428	5309
55°	5891	5232	5105
60°	5663	5008	4898
65°	5424	4774	4664
70°	5154	4456	4421
75°	4726	4146	4124
80°	4166	3770	3800
85°	3639	3499	3668

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6273 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.5	3.1
10°-20°	276.8	8.7
20°-30°	411.6	12.9
30°-40°	487.5	15.3
40°-50°	504.0	15.8
50°-60°	464.3	14.5
60°-70°	375.3	11.8
70°-80°	251.1	7.9
80°-90°	129.8	4.1
90°-100°	73.1	2.3
100°-110°	53.9	1.7
110°-120°	36.1	1.1
120°-130°	20.4	0.6
130°-140°	8.9	0.3
140°-150°	1.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	785.9	24.6
0°-40°	1273.4	39.9
0°-60°	2241.7	70.2
0°-90°	2997.9	93.9
90°-120°	163.1	5.1
90°-150°	194.2	6.1
90°-180°	194.0	6.1
0°-180°	3192.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1030	1030	1030	1030	1030	
5°	1030	1028	1021	1029	1028	98
15°	984	985	978	984	980	277
25°	894	897	891	895	890	412
35°	774	781	778	781	781	484
45°	638	649	654	661	662	492
55°	490	506	522	533	537	438
65°	337	361	385	400	404	335
75°	186	212	244	265	270	197
85°	56	89	124	146	155	58
90°	16	48	83	106	113	11
95°	13	39	74	96	103	10
105°	9	25	56	76	83	10
115°	6	13	39	58	64	6
125°	4	3	23	39	44	3
135°	2	1	8	21	26	2
145°	1	0	0	5	9	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°	1030.4	1030.4	1030.4	1030.4	1030.4
2.5°	1033.5	1031.4	1024.4	1031.4	1030.4
5°	1030.4	1028.4	1021.3	1029.4	1028.4
7.5°	1023.4	1022.3	1015.3	1022.3	1021.3
10°	1013.3	1013.3	1005.2	1012.2	1011.2
12.5°	999.1	1000.1	994.1	999.1	996.1
15°	984.0	985.0	977.9	984.0	979.9
17.5°	964.8	966.8	959.7	964.8	961.7
20°	943.6	945.6	938.5	941.5	941.5
22.5°	919.3	923.3	915.3	919.3	916.3
25°	894.1	897.1	891.0	895.1	890.0
27.5°	866.8	870.8	863.7	866.8	864.8
30°	835.5	841.5	835.5	837.5	836.5
32.5°	807.2	812.2	808.2	810.2	809.2
35°	773.8	780.9	777.9	780.9	780.9
37.5°	741.5	747.6	746.6	750.6	749.6
40°	708.2	716.3	715.2	719.3	721.3
42.5°	671.8	682.9	685.9	691.0	691.0
45°	637.5	648.6	653.6	660.7	661.7
47.5°	602.1	612.2	620.3	630.4	632.4
50°	565.7	576.8	588.0	599.1	602.1
52.5°	527.3	541.5	555.6	567.7	569.8
55°	490.0	506.1	522.3	533.4	537.4
57.5°	451.6	470.8	488.9	501.1	504.1
60°	413.2	433.4	453.6	468.7	471.8
62.5°	375.8	396.0	418.2	435.4	439.4
65°	337.4	360.7	384.9	400.0	404.1
67.5°	302.1	324.3	348.5	366.7	371.8
70°	262.7	285.9	312.2	331.4	337.4
72.5°	224.3	248.5	277.8	299.0	303.1
75°	185.9	212.1	244.5	264.7	269.7
77.5°	148.5	178.8	209.1	231.3	235.4
80°	114.2	144.5	178.8	201.0	205.1
82.5°	82.8	115.2	150.5	171.7	179.8
85°	55.6	88.9	124.3	146.5	154.6
87.5°	35.4	67.7	102.0	125.3	132.3
90°	16.2	48.5	82.8	106.1	113.1
92.5°	14.1	43.4	78.8	101.0	108.1
95°	13.1	39.4	73.7	96.0	103.0
97.5°	12.1	36.4	69.7	90.9	98.0
100°	11.1	32.3	64.7	85.9	91.9
102.5°	10.1	29.3	60.6	80.8	86.9
105°	9.1	25.3	55.6	75.8	82.8
107.5°	8.1	22.2	51.5	71.7	77.8
110°	7.1	19.2	47.5	66.7	73.7



TEST NUMBER: P242838

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	7.1	16.2	43.4	61.6	68.7
115°	6.1	13.1	39.4	57.6	63.6
117.5°	5.1	10.1	35.4	52.5	59.6
120°	5.1	8.1	31.3	48.5	54.6
122.5°	4.0	5.1	27.3	43.4	49.5
125°	4.0	3.0	23.2	39.4	44.4
127.5°	3.0	2.0	19.2	34.3	40.4
130°	3.0	2.0	16.2	30.3	35.4
132.5°	2.0	2.0	12.1	26.3	30.3
135°	2.0	1.0	8.1	21.2	26.3
137.5°	2.0	1.0	5.1	17.2	21.2
140°	1.0	1.0	2.0	13.1	17.2
142.5°	1.0	0.0	0.0	9.1	13.1
145°	1.0	0.0	0.0	5.1	9.1
147.5°	0.0	0.0	0.0	2.0	4.0
150°	0.0	0.0	0.0	0.0	1.0
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	16.84	18.37	17.29	18.81	19.27	17.88	19.41	18.34	19.85	20.31
	3H	18.49	19.88	18.96	20.33	20.84	20.06	21.45	20.53	21.90	22.40
	4H	19.06	20.38	19.55	20.84	21.36	21.02	22.34	21.51	22.80	23.32
	6H	19.44	20.66	19.94	21.14	21.68	21.92	23.14	22.42	23.62	24.16
	8H	19.54	20.71	20.06	21.22	21.76	22.35	23.52	22.87	24.03	24.57
	12H	19.60	20.72	20.12	21.22	21.79	22.81	23.93	23.33	24.43	25.00
4H	2H	17.60	18.92	18.09	19.38	19.90	18.41	19.73	18.90	20.20	20.72
	3H	19.48	20.59	19.98	21.11	21.65	20.80	21.92	21.31	22.43	22.98
	4H	20.18	21.20	20.70	21.72	22.30	21.92	22.94	22.44	23.46	24.03
	6H	20.69	21.58	21.23	22.13	22.72	22.98	23.88	23.53	24.43	25.02
	8H	20.84	21.68	21.39	22.23	22.83	23.50	24.34	24.05	24.89	25.49
	12H	20.94	21.70	21.51	22.28	22.89	24.06	24.82	24.63	25.40	26.01
8H	4H	20.66	21.50	21.21	22.05	22.65	22.18	23.02	22.73	23.57	24.17
	6H	21.33	22.04	21.91	22.63	23.24	23.40	24.11	23.98	24.70	25.31
	8H	21.57	22.20	22.16	22.81	23.43	24.04	24.68	24.63	25.28	25.90
	12H	21.75	22.32	22.34	22.91	23.60	24.75	25.32	25.35	25.91	26.60
12H	4H	20.76	21.52	21.33	22.10	22.71	22.20	22.96	22.77	23.54	24.14
	6H	21.49	22.13	22.09	22.73	23.35	23.45	24.09	24.04	24.69	25.31
	8H	21.81	22.38	22.40	22.97	23.66	24.15	24.72	24.75	25.31	26.00