

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: P243658

Luminaire Tested: S125DRP-H1090D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243658  
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-H1090D940-X4F0-XX-UDD-F-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

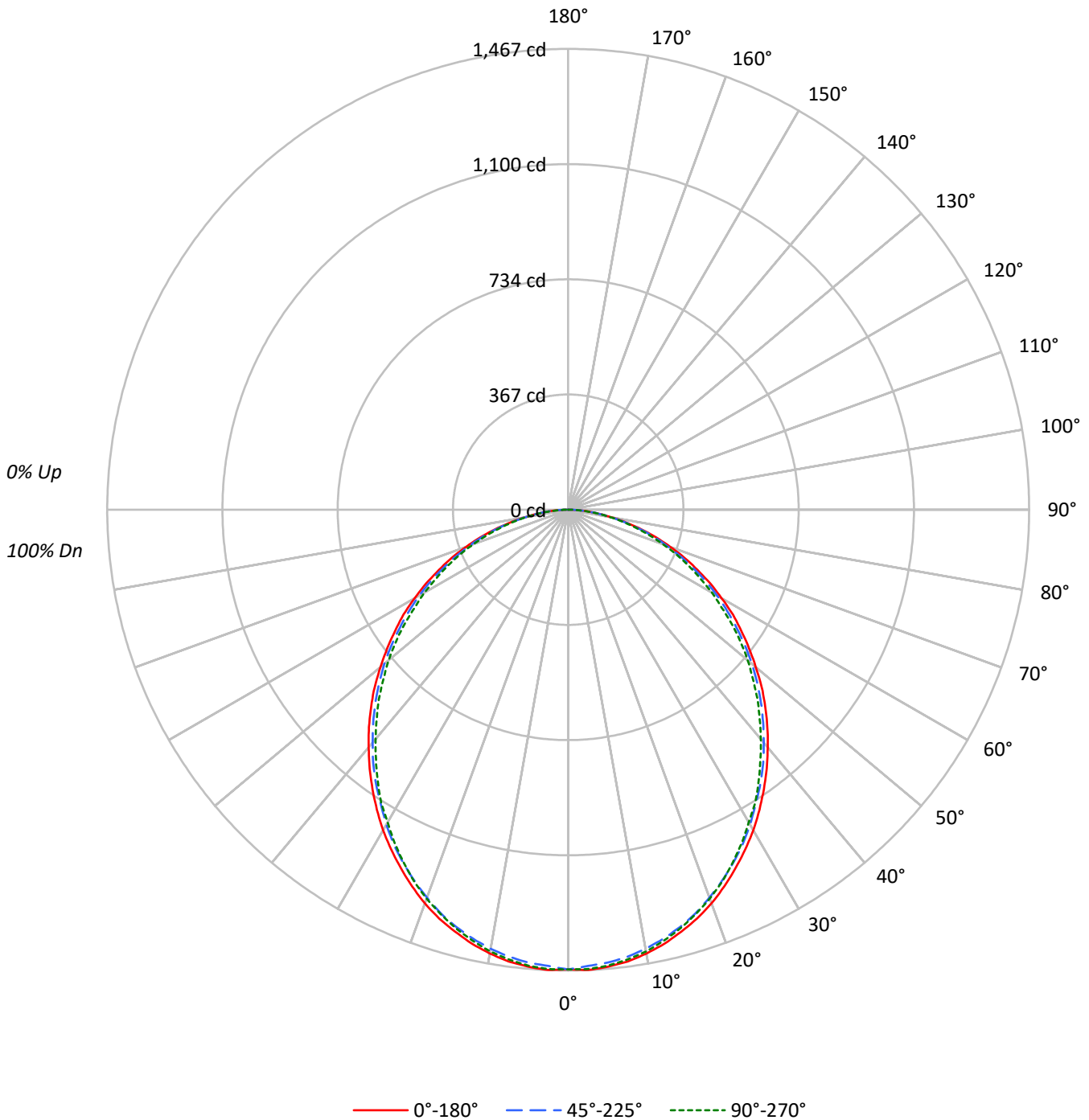
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3777.7 lumens  
Efficiency: N/A  
Efficacy: 119.9 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): 31.5  
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	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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60					60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51					51			
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44					44			
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25					25			

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

	0°	45°	90°
0°	10402	10402	10402
5°	10418	10326	10395
10°	10353	10244	10306
15°	10231	10120	10152
20°	10086	9940	9964
25°	9877	9734	9717
30°	9667	9499	9429
35°	9418	9251	9167
40°	9165	8986	8847
45°	8914	8721	8559
50°	8619	8441	8251
55°	8328	8103	7890
60°	8013	7784	7510
65°	7638	7368	7114
70°	7163	6895	6671
75°	6604	6398	6105
80°	5759	5714	5583
85°	4991	4991	4730

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8914 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.1	3.7
10°-20°	389.6	10.3
20°-30°	574.3	15.2
30°-40°	668.9	17.7
40°-50°	670.2	17.7
50°-60°	585.9	15.5
60°-70°	434.8	11.5
70°-80°	246.6	6.5
80°-90°	69.2	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°	1102.0	29.2
0°-40°	1770.9	46.9
0°-60°	3027.0	80.1
0°-90°	3777.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3777.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1464	1464	1464	1464	1464	
5°	1460	1458	1447	1458	1457	139
15°	1390	1388	1375	1383	1380	392
25°	1260	1255	1241	1244	1239	580
35°	1086	1079	1066	1060	1056	679
45°	887	885	868	855	852	684
55°	672	671	654	640	637	602
65°	454	451	438	428	423	450
75°	240	236	233	229	222	255
85°	61	61	61	59	58	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1463.5	1463.5	1463.5	1463.5	1463.5
2.5°	1466.7	1464.5	1453.8	1464.5	1463.5
5°	1460.2	1458.1	1447.4	1458.1	1457.0
7.5°	1450.6	1447.4	1435.6	1446.3	1444.1
10°	1434.5	1432.3	1419.4	1428.0	1428.0
12.5°	1415.1	1411.9	1399.0	1406.6	1405.5
15°	1390.5	1388.3	1375.4	1382.9	1379.7
17.5°	1364.7	1359.3	1347.5	1353.9	1349.7
20°	1333.5	1329.3	1314.2	1319.6	1317.4
22.5°	1298.1	1292.7	1278.8	1282.0	1280.9
25°	1259.5	1255.2	1241.2	1244.4	1239.1
27.5°	1219.7	1214.4	1201.5	1201.5	1196.1
30°	1177.9	1172.5	1157.5	1157.5	1148.9
32.5°	1132.8	1128.5	1110.2	1109.1	1107.0
35°	1085.5	1079.1	1066.2	1059.8	1056.5
37.5°	1038.3	1032.9	1019.0	1010.4	1005.0
40°	987.8	984.6	968.5	961.0	953.5
42.5°	938.4	935.2	918.0	905.1	901.9
45°	886.9	884.7	867.6	854.7	851.5
47.5°	835.3	833.2	816.0	802.1	796.7
50°	779.5	779.5	763.4	749.4	746.2
52.5°	725.8	724.8	708.6	694.7	691.5
55°	672.1	671.1	653.9	639.9	636.7
57.5°	621.7	615.2	600.2	589.5	578.7
60°	563.7	560.5	547.6	533.6	528.3
62.5°	510.0	505.7	492.8	481.0	473.5
65°	454.2	451.0	438.1	428.4	423.0
67.5°	401.6	397.3	384.4	376.9	372.6
70°	344.7	341.4	331.8	322.1	321.0
72.5°	294.2	289.9	284.5	275.9	271.6
75°	240.5	236.2	233.0	228.7	222.3
77.5°	189.0	186.8	184.7	181.5	178.2
80°	140.7	140.7	139.6	137.4	136.4
82.5°	99.9	100.9	97.7	95.6	95.6
85°	61.2	61.2	61.2	59.1	58.0
87.5°	30.1	26.8	26.8	24.7	24.7
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	19.44	21.06	19.81	21.37	21.69	19.11	20.72	19.47	21.04	21.35
	3H	21.20	22.66	21.58	22.99	23.35	20.82	22.28	21.20	22.61	22.97
	4H	21.85	23.23	22.25	23.57	23.95	21.46	22.83	21.86	23.18	23.56
	6H	22.31	23.59	22.73	23.95	24.34	21.93	23.21	22.34	23.57	23.96
	8H	22.46	23.68	22.89	24.07	24.47	22.09	23.30	22.51	23.69	24.09
	12H	22.56	23.73	22.99	24.11	24.54	22.19	23.35	22.62	23.74	24.16
4H	2H	20.02	21.39	20.42	21.74	22.11	19.75	21.12	20.15	21.47	21.85
	3H	22.00	23.15	22.41	23.55	23.95	21.68	22.83	22.09	23.23	23.63
	4H	22.77	23.81	23.21	24.23	24.66	22.45	23.49	22.88	23.90	24.34
	6H	23.36	24.27	23.82	24.71	25.17	23.05	23.96	23.50	24.40	24.85
	8H	23.56	24.41	24.02	24.86	25.32	23.25	24.10	23.71	24.54	25.01
	12H	23.71	24.47	24.19	24.95	25.42	23.39	24.16	23.87	24.63	25.10
8H	4H	23.06	23.91	23.52	24.35	24.82	22.77	23.62	23.23	24.06	24.53
	6H	23.77	24.47	24.26	24.96	25.44	23.49	24.20	23.98	24.69	25.16
	8H	24.04	24.67	24.55	25.18	25.67	23.76	24.40	24.27	24.90	25.39
	12H	24.26	24.82	24.77	25.31	25.87	23.98	24.54	24.49	25.03	25.59
12H	4H	23.09	23.85	23.57	24.32	24.79	22.80	23.57	23.28	24.04	24.51
	6H	23.81	24.45	24.32	24.96	25.44	23.55	24.18	24.06	24.69	25.18
	8H	24.15	24.71	24.65	25.20	25.76	23.88	24.44	24.38	24.93	25.49