

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: P242778

Luminaire Tested: S125DRP-S1090D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125DRP-S1090D835-X4F0-XX-UDD-F-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

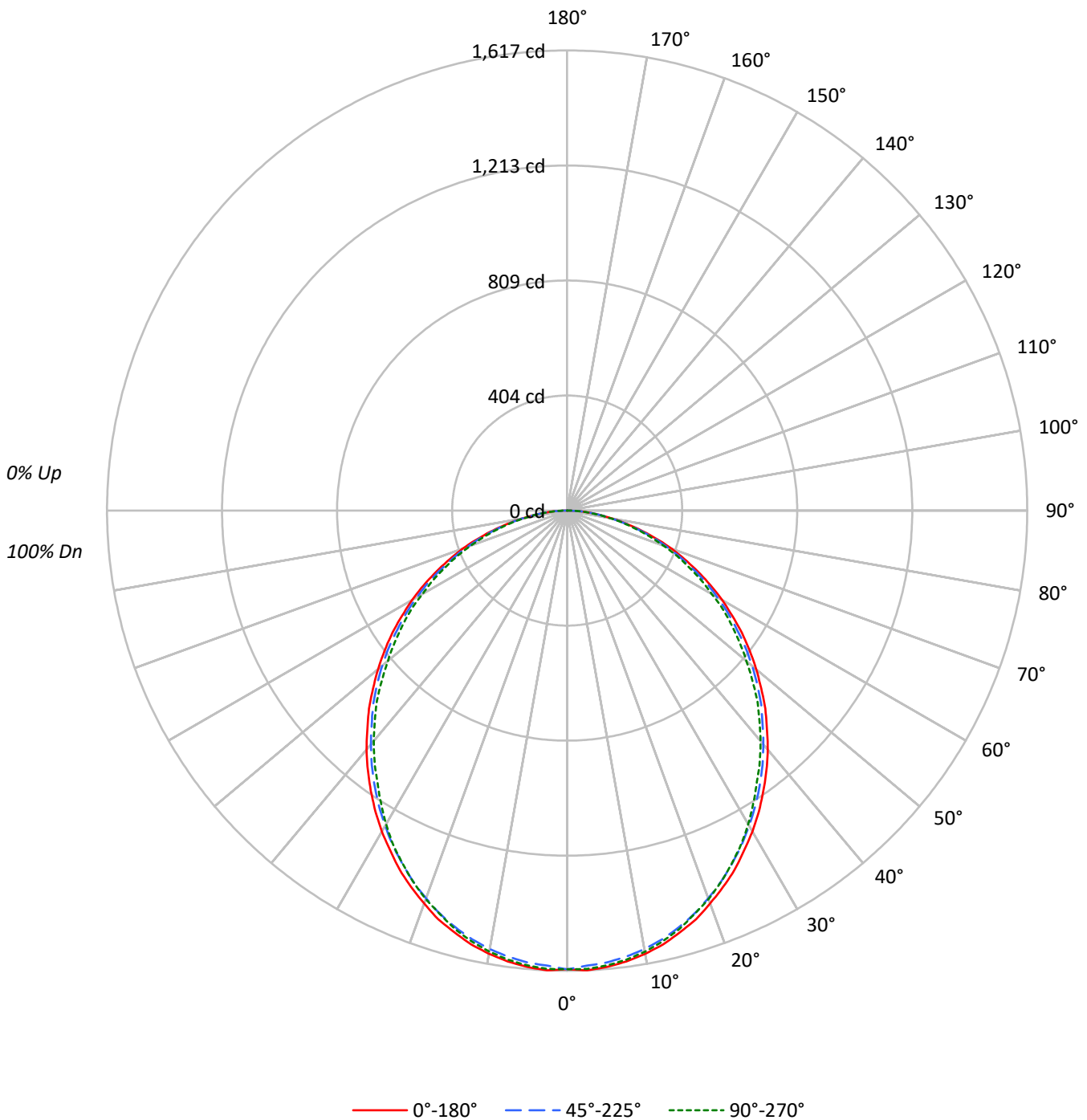
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4195.4 lumens  
Efficiency: N/A  
Efficacy: 120.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
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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CATALOG NUMBER: S125DRP-S1090D835-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	104	100	96	106	102	98	95	98	94	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	72	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59					59			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39					39			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28					28			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

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

	0°	45°	90°
0°	11456	11456	11456
5°	11482	11373	11446
10°	11412	11292	11357
15°	11288	11157	11203
20°	11112	10967	10986
25°	10921	10741	10730
30°	10685	10497	10445
35°	10434	10235	10091
40°	10175	9951	9809
45°	9896	9690	9498
50°	9589	9376	9094
55°	9291	9023	8771
60°	8937	8665	8357
65°	8515	8235	7956
70°	8109	7739	7473
75°	7390	7145	6898
80°	6577	6471	6315
85°	5716	5823	5513

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9896 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.1	3.6
10°-20°	429.6	10.2
20°-30°	634.3	15.1
30°-40°	740.0	17.6
40°-50°	743.3	17.7
50°-60°	652.5	15.6
60°-70°	486.0	11.6
70°-80°	277.6	6.6
80°-90°	80.1	1.9
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°	1216.0	29.0
0°-40°	1956.1	46.6
0°-60°	3351.8	79.9
0°-90°	4195.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4195.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1612	1612	1612	1612	1612	
5°	1609	1607	1594	1606	1604	153
15°	1534	1530	1516	1523	1523	433
25°	1393	1386	1370	1372	1368	641
35°	1203	1198	1180	1173	1163	752
45°	984	979	964	949	945	759
55°	750	746	728	717	708	669
65°	506	504	490	478	473	502
75°	269	266	260	256	251	286
85°	70	71	71	70	68	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1611.9	1611.9	1611.9	1611.9	1611.9
2.5°	1617.0	1613.2	1600.4	1613.2	1611.9
5°	1609.4	1606.8	1594.1	1605.5	1604.3
7.5°	1597.9	1595.3	1581.3	1592.8	1591.5
10°	1581.3	1578.8	1564.7	1574.9	1573.7
12.5°	1560.9	1555.8	1543.0	1550.7	1550.7
15°	1534.1	1530.3	1516.3	1522.6	1522.6
17.5°	1506.1	1499.7	1485.7	1493.3	1486.9
20°	1469.1	1466.5	1450.0	1458.9	1452.5
22.5°	1432.1	1427.0	1411.7	1416.8	1413.0
25°	1392.6	1386.2	1369.6	1372.2	1368.3
27.5°	1346.7	1342.8	1326.3	1327.5	1323.7
30°	1302.0	1298.2	1279.1	1276.5	1272.7
32.5°	1253.6	1247.2	1230.6	1225.5	1217.9
35°	1202.6	1197.5	1179.6	1173.2	1163.0
37.5°	1150.3	1143.9	1127.3	1118.4	1112.0
40°	1096.7	1090.3	1072.5	1061.0	1057.2
42.5°	1039.3	1034.2	1016.4	1006.2	999.8
45°	984.5	979.4	964.1	948.8	945.0
47.5°	924.6	925.8	906.7	891.4	882.5
50°	867.2	863.3	848.0	831.5	822.5
52.5°	808.5	806.0	789.4	775.3	765.1
55°	749.8	746.0	728.2	716.7	707.8
57.5°	687.4	686.1	670.8	655.5	651.7
60°	628.7	623.6	609.6	596.8	587.9
62.5°	567.5	563.7	552.2	538.2	531.8
65°	506.3	503.7	489.7	478.2	473.1
67.5°	446.3	441.2	431.0	420.8	418.3
70°	390.2	383.8	372.4	364.7	359.6
72.5°	329.0	325.2	318.8	309.9	304.8
75°	269.1	266.5	260.2	256.3	251.2
77.5°	213.0	211.7	207.9	205.3	201.5
80°	160.7	160.7	158.1	156.9	154.3
82.5°	114.8	112.2	112.2	109.7	109.7
85°	70.1	71.4	71.4	70.1	67.6
87.5°	34.4	34.4	33.2	33.2	30.6
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	19.82	21.44	20.19	21.75	22.07	19.49	21.11	19.86	21.43	21.74
	3H	21.59	23.05	21.97	23.38	23.74	21.23	22.69	21.60	23.02	23.38
	4H	22.25	23.63	22.65	23.97	24.35	21.87	23.25	22.27	23.60	23.97
	6H	22.72	24.00	23.14	24.37	24.76	22.36	23.63	22.77	24.00	24.39
	8H	22.88	24.10	23.31	24.49	24.89	22.52	23.74	22.94	24.13	24.53
	12H	22.99	24.16	23.42	24.54	24.97	22.63	23.80	23.06	24.18	24.61
4H	2H	20.40	21.78	20.80	22.13	22.50	20.14	21.52	20.54	21.87	22.24
	3H	22.40	23.55	22.80	23.95	24.35	22.09	23.25	22.50	23.64	24.04
	4H	23.18	24.23	23.61	24.64	25.08	22.87	23.91	23.30	24.32	24.76
	6H	23.79	24.70	24.24	25.14	25.60	23.48	24.39	23.94	24.84	25.29
	8H	24.00	24.85	24.46	25.29	25.76	23.69	24.55	24.15	24.99	25.45
	12H	24.15	24.92	24.63	25.39	25.86	23.85	24.61	24.33	25.09	25.56
8H	4H	23.47	24.32	23.93	24.76	25.23	23.19	24.04	23.65	24.49	24.95
	6H	24.20	24.91	24.69	25.40	25.87	23.93	24.64	24.42	25.13	25.60
	8H	24.48	25.11	24.99	25.62	26.11	24.21	24.85	24.72	25.36	25.84
	12H	24.71	25.27	25.21	25.76	26.32	24.45	25.01	24.95	25.50	26.06
12H	4H	23.50	24.27	23.98	24.74	25.21	23.23	23.99	23.71	24.47	24.94
	6H	24.25	24.89	24.76	25.40	25.88	23.99	24.63	24.50	25.14	25.62
	8H	24.59	25.15	25.09	25.64	26.20	24.33	24.90	24.84	25.39	25.95