

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242858

Luminaire Tested: **S125DR-S1270D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242858  
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 (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-S1270D930-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3818.1 lumens  
Efficiency: N/A  
Efficacy: 92.9 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

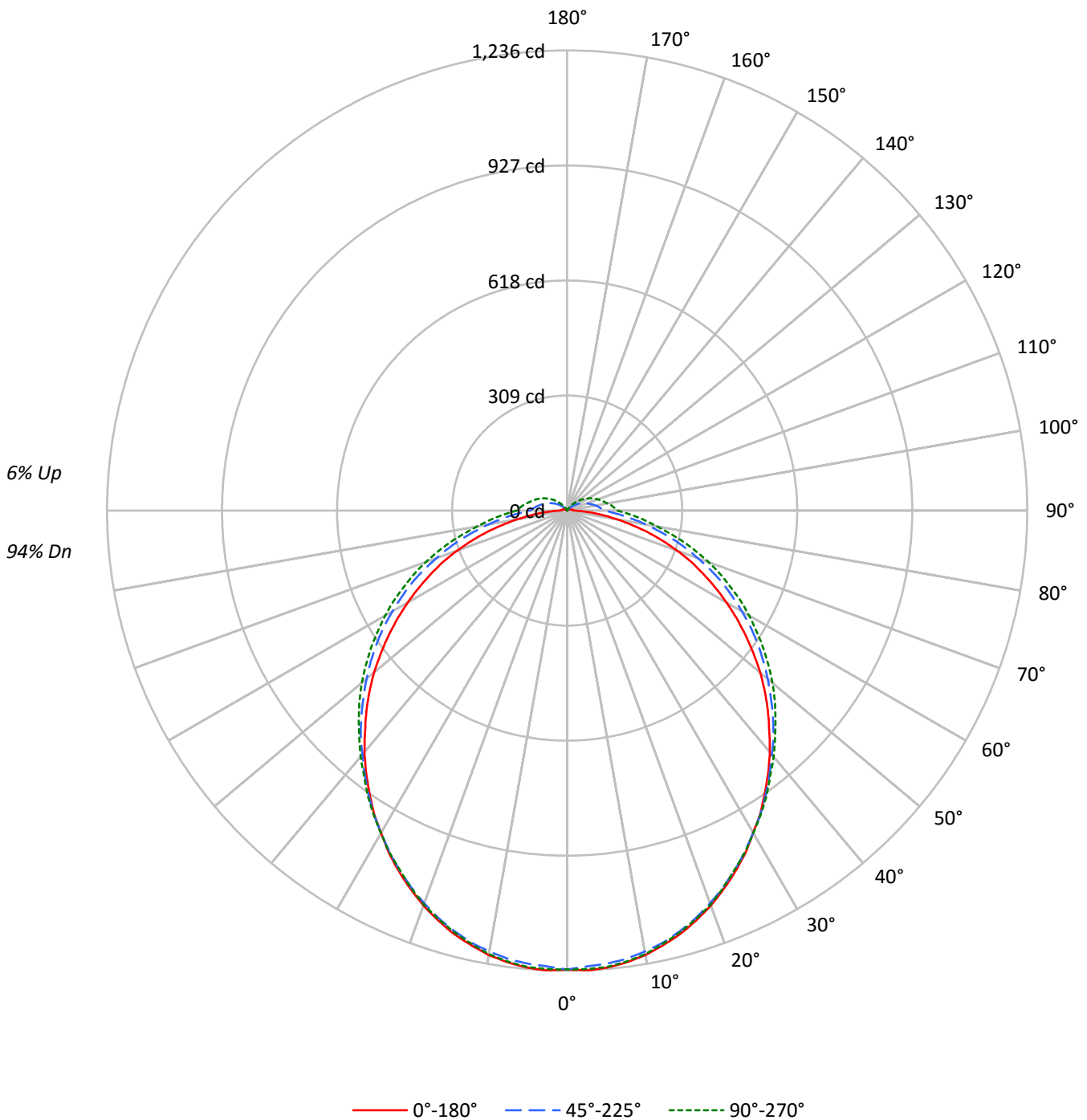
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8760	8760	8760
5°	8777	8591	8615
10°	8714	8430	8413
15°	8610	8240	8158
20°	8470	8006	7905
25°	8303	7758	7593
30°	8101	7484	7311
35°	7912	7232	7051
40°	7719	6967	6790
45°	7503	6740	6557
50°	7295	6492	6350
55°	7045	6258	6106
60°	6773	5990	5858
65°	6488	5710	5578
70°	6165	5329	5289
75°	5651	4958	4933
80°	4980	4510	4545
85°	4353	4183	4387



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.6	3.1
10°-20°	331.1	8.7
20°-30°	492.3	12.9
30°-40°	583.1	15.3
40°-50°	602.8	15.8
50°-60°	555.3	14.5
60°-70°	448.9	11.8
70°-80°	300.4	7.9
80°-90°	155.3	4.1
90°-100°	87.5	2.3
100°-110°	64.5	1.7
110°-120°	43.2	1.1
120°-130°	24.4	0.6
130°-140°	10.7	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°	940.1	24.6
0°-40°	1523.1	39.9
0°-60°	2681.2	70.2
0°-90°	3585.8	93.9
90°-120°	195.1	5.1
90°-150°	232.3	6.1
90°-180°	232.0	6.1
0°-180°	3818.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1232	1232	1232	1232	1232	
5°	1232	1230	1222	1231	1230	117
15°	1177	1178	1170	1177	1172	332
25°	1069	1073	1066	1071	1064	492
35°	926	934	930	934	934	579
45°	762	776	782	790	792	588
55°	586	605	625	638	643	524
65°	404	431	460	478	483	401
75°	222	254	292	317	323	236
85°	66	106	149	175	185	69
90°	19	58	99	127	135	13
95°	16	47	88	115	123	12
105°	11	30	66	91	99	12
115°	7	16	47	69	76	7
125°	5	4	28	47	53	4
135°	2	1	10	25	31	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°	1232.5	1232.5	1232.5	1232.5	1232.5
2.5°	1236.1	1233.7	1225.3	1233.7	1232.5
5°	1232.5	1230.1	1221.6	1231.3	1230.1
7.5°	1224.0	1222.8	1214.4	1222.8	1221.6
10°	1212.0	1212.0	1202.3	1210.8	1209.5
12.5°	1195.0	1196.3	1189.0	1195.0	1191.4
15°	1176.9	1178.1	1169.7	1176.9	1172.1
17.5°	1154.0	1156.4	1147.9	1154.0	1150.3
20°	1128.6	1131.0	1122.5	1126.2	1126.2
22.5°	1099.6	1104.4	1094.8	1099.6	1096.0
25°	1069.4	1073.0	1065.8	1070.6	1064.5
27.5°	1036.8	1041.6	1033.1	1036.8	1034.3
30°	999.3	1006.5	999.3	1001.7	1000.5
32.5°	965.5	971.5	966.7	969.1	967.9
35°	925.6	934.0	930.4	934.0	934.0
37.5°	886.9	894.2	893.0	897.8	896.6
40°	847.0	856.7	855.5	860.3	862.8
42.5°	803.5	816.8	820.5	826.5	826.5
45°	762.5	775.8	781.8	790.3	791.5
47.5°	720.2	732.3	741.9	754.0	756.4
50°	676.7	690.0	703.3	716.5	720.2
52.5°	630.8	647.7	664.6	679.1	681.5
55°	586.0	605.4	624.7	638.0	642.8
57.5°	540.1	563.1	584.8	599.3	603.0
60°	494.2	518.4	542.5	560.7	564.3
62.5°	449.5	473.7	500.3	520.8	525.6
65°	403.6	431.4	460.4	478.5	483.3
67.5°	361.3	387.9	416.9	438.6	444.7
70°	314.2	342.0	373.4	396.3	403.6
72.5°	268.3	297.3	332.3	357.7	362.5
75°	222.3	253.8	292.4	316.6	322.6
77.5°	177.6	213.9	250.1	276.7	281.5
80°	136.5	172.8	213.9	240.5	245.3
82.5°	99.1	137.8	180.0	205.4	215.1
85°	66.5	106.3	148.6	175.2	184.9
87.5°	42.3	81.0	122.0	149.8	158.3
90°	19.3	58.0	99.1	126.9	135.3
92.5°	16.9	52.0	94.3	120.8	129.3
95°	15.7	47.1	88.2	114.8	123.3
97.5°	14.5	43.5	83.4	108.8	117.2
100°	13.3	38.7	77.3	102.7	110.0
102.5°	12.1	35.0	72.5	96.7	103.9
105°	10.9	30.2	66.5	90.6	99.1
107.5°	9.7	26.6	61.6	85.8	93.0
110°	8.5	23.0	56.8	79.8	88.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	8.5	19.3	52.0	73.7	82.2
115°	7.3	15.7	47.1	68.9	76.1
117.5°	6.0	12.1	42.3	62.8	71.3
120°	6.0	9.7	37.5	58.0	65.3
122.5°	4.8	6.0	32.6	52.0	59.2
125°	4.8	3.6	27.8	47.1	53.2
127.5°	3.6	2.4	23.0	41.1	48.3
130°	3.6	2.4	19.3	36.3	42.3
132.5°	2.4	2.4	14.5	31.4	36.3
135°	2.4	1.2	9.7	25.4	31.4
137.5°	2.4	1.2	6.0	20.5	25.4
140°	1.2	1.2	2.4	15.7	20.5
142.5°	1.2	0.0	0.0	10.9	15.7
145°	1.2	0.0	0.0	6.0	10.9
147.5°	0.0	0.0	0.0	2.4	4.8
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

(END OF REPORT)