

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: P242844

Luminaire Tested: **S125DR-S1270D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242844  
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-S1270D830-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4414.0 lumens  
Efficiency: N/A  
Efficacy: 107.4 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

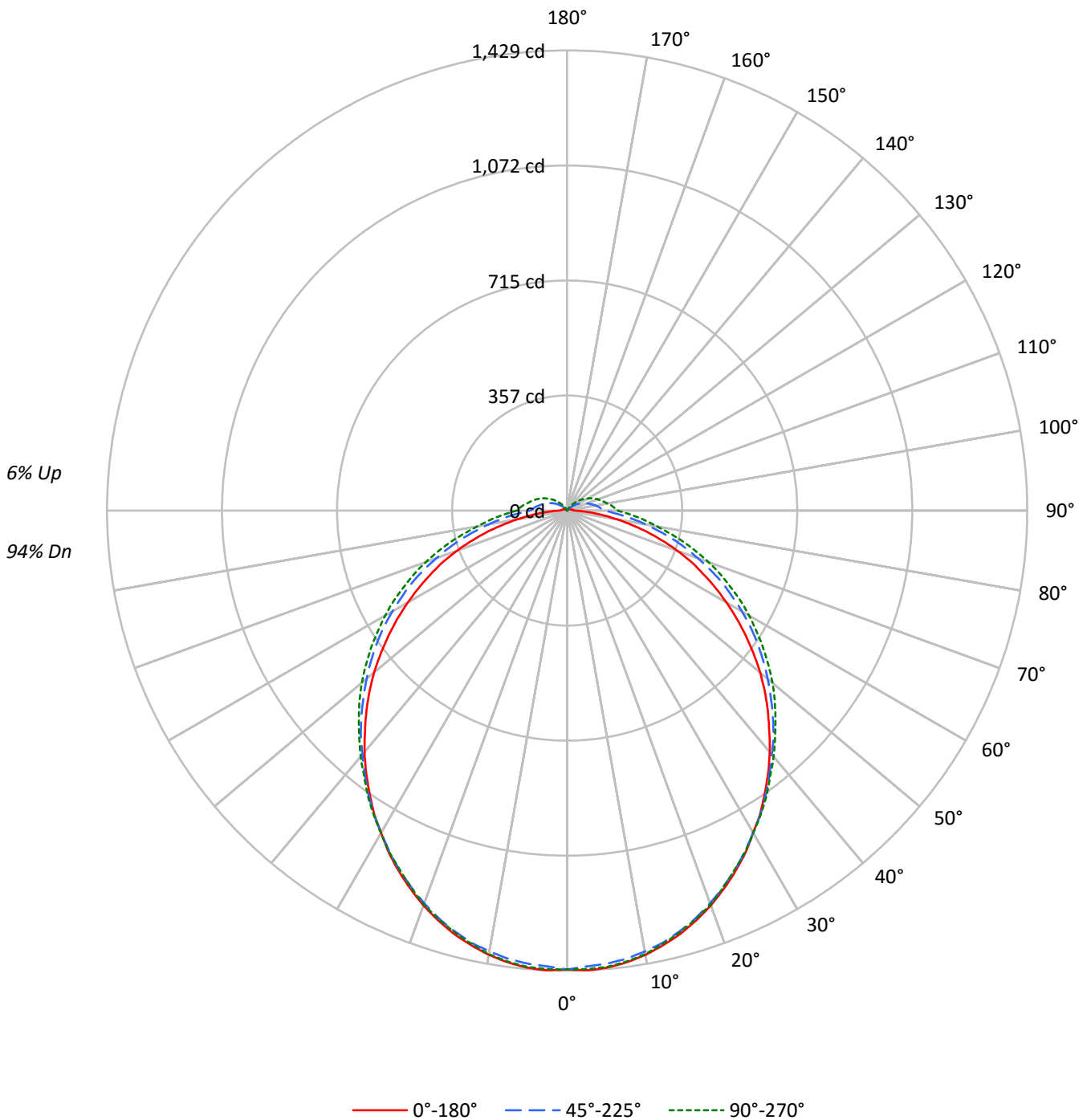
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	10127	10127	10127
5°	10147	9932	9960
10°	10074	9746	9726
15°	9954	9526	9431
20°	9791	9256	9138
25°	9599	8968	8778
30°	9365	8652	8452
35°	9146	8361	8152
40°	8924	8054	7850
45°	8674	7791	7581
50°	8434	7505	7341
55°	8145	7234	7060
60°	7829	6925	6773
65°	7501	6601	6449
70°	7126	6160	6114
75°	6533	5733	5704
80°	5760	5214	5254
85°	5027	4836	5070



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.8	3.1
10°-20°	382.8	8.7
20°-30°	569.2	12.9
30°-40°	674.1	15.3
40°-50°	696.9	15.8
50°-60°	642.0	14.5
60°-70°	519.0	11.8
70°-80°	347.3	7.9
80°-90°	179.5	4.1
90°-100°	101.1	2.3
100°-110°	74.5	1.7
110°-120°	49.9	1.1
120°-130°	28.3	0.6
130°-140°	12.4	0.3
140°-150°	2.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1086.8	24.6
0°-40°	1760.8	39.9
0°-60°	3099.7	70.2
0°-90°	4145.4	93.9
90°-120°	225.5	5.1
90°-150°	268.6	6.1
90°-180°	269.0	6.1
0°-180°	4414.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1425	1425	1425	1425	1425	
5°	1425	1422	1412	1424	1422	135
15°	1361	1362	1352	1361	1355	383
25°	1236	1240	1232	1238	1231	569
35°	1070	1080	1076	1080	1080	670
45°	882	897	904	914	915	680
55°	678	700	722	738	743	606
65°	467	499	532	553	559	463
75°	257	293	338	366	373	272
85°	77	123	172	203	214	80
90°	22	67	114	147	156	16
95°	18	54	102	133	142	14
105°	13	35	77	105	114	13
115°	8	18	54	80	88	8
125°	6	4	32	54	62	5
135°	3	1	11	29	36	2
145°	1	0	0	7	13	1
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°	1424.9	1424.9	1424.9	1424.9	1424.9
2.5°	1429.0	1426.3	1416.5	1426.3	1424.9
5°	1424.9	1422.1	1412.3	1423.5	1422.1
7.5°	1415.1	1413.7	1403.9	1413.7	1412.3
10°	1401.1	1401.1	1389.9	1399.7	1398.3
12.5°	1381.6	1383.0	1374.6	1381.6	1377.4
15°	1360.6	1362.0	1352.2	1360.6	1355.0
17.5°	1334.1	1336.9	1327.1	1334.1	1329.9
20°	1304.7	1307.5	1297.7	1301.9	1301.9
22.5°	1271.2	1276.8	1265.6	1271.2	1267.0
25°	1236.3	1240.5	1232.1	1237.7	1230.7
27.5°	1198.6	1204.1	1194.4	1198.6	1195.8
30°	1155.3	1163.6	1155.3	1158.0	1156.7
32.5°	1116.1	1123.1	1117.5	1120.3	1118.9
35°	1070.0	1079.8	1075.6	1079.8	1079.8
37.5°	1025.3	1033.7	1032.3	1037.9	1036.5
40°	979.2	990.4	989.0	994.6	997.4
42.5°	929.0	944.3	948.5	955.5	955.5
45°	881.5	896.8	903.8	913.6	915.0
47.5°	832.6	846.5	857.7	871.7	874.5
50°	782.3	797.6	813.0	828.4	832.6
52.5°	729.2	748.7	768.3	785.1	787.9
55°	677.5	699.9	722.2	737.6	743.2
57.5°	624.4	651.0	676.1	692.9	697.1
60°	571.3	599.3	627.2	648.2	652.4
62.5°	519.7	547.6	578.3	602.1	607.7
65°	466.6	498.7	532.2	553.2	558.8
67.5°	417.7	448.4	481.9	507.1	514.1
70°	363.2	395.3	431.6	458.2	466.6
72.5°	310.1	343.6	384.2	413.5	419.1
75°	257.0	293.4	338.1	366.0	373.0
77.5°	205.3	247.3	289.2	319.9	325.5
80°	157.9	199.8	247.3	278.0	283.6
82.5°	114.5	159.2	208.1	237.5	248.7
85°	76.8	122.9	171.8	202.6	213.7
87.5°	48.9	93.6	141.1	173.2	183.0
90°	22.4	67.1	114.5	146.7	156.5
92.5°	19.6	60.1	109.0	139.7	149.5
95°	18.2	54.5	102.0	132.7	142.5
97.5°	16.8	50.3	96.4	125.7	135.5
100°	15.4	44.7	89.4	118.7	127.1
102.5°	14.0	40.5	83.8	111.8	120.1
105°	12.6	34.9	76.8	104.8	114.5
107.5°	11.2	30.7	71.2	99.2	107.6
110°	9.8	26.5	65.7	92.2	102.0



TEST NUMBER: P242844

CATALOG NUMBER: S125DR-S1270D830-X4F0-XX-UDD-D-W

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	9.8	22.4	60.1	85.2	95.0
115°	8.4	18.2	54.5	79.6	88.0
117.5°	7.0	14.0	48.9	72.6	82.4
120°	7.0	11.2	43.3	67.1	75.4
122.5°	5.6	7.0	37.7	60.1	68.4
125°	5.6	4.2	32.1	54.5	61.5
127.5°	4.2	2.8	26.5	47.5	55.9
130°	4.2	2.8	22.4	41.9	48.9
132.5°	2.8	2.8	16.8	36.3	41.9
135°	2.8	1.4	11.2	29.3	36.3
137.5°	2.8	1.4	7.0	23.7	29.3
140°	1.4	1.4	2.8	18.2	23.7
142.5°	1.4	0.0	0.0	12.6	18.2
145°	1.4	0.0	0.0	7.0	12.6
147.5°	0.0	0.0	0.0	2.8	5.6
150°	0.0	0.0	0.0	0.0	1.4
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)