

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: P243713

Luminaire Tested: **S125DR-H1270D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243713  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-H1270D840-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4772.2 lumens  
Efficiency: N/A  
Efficacy: 126.6 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

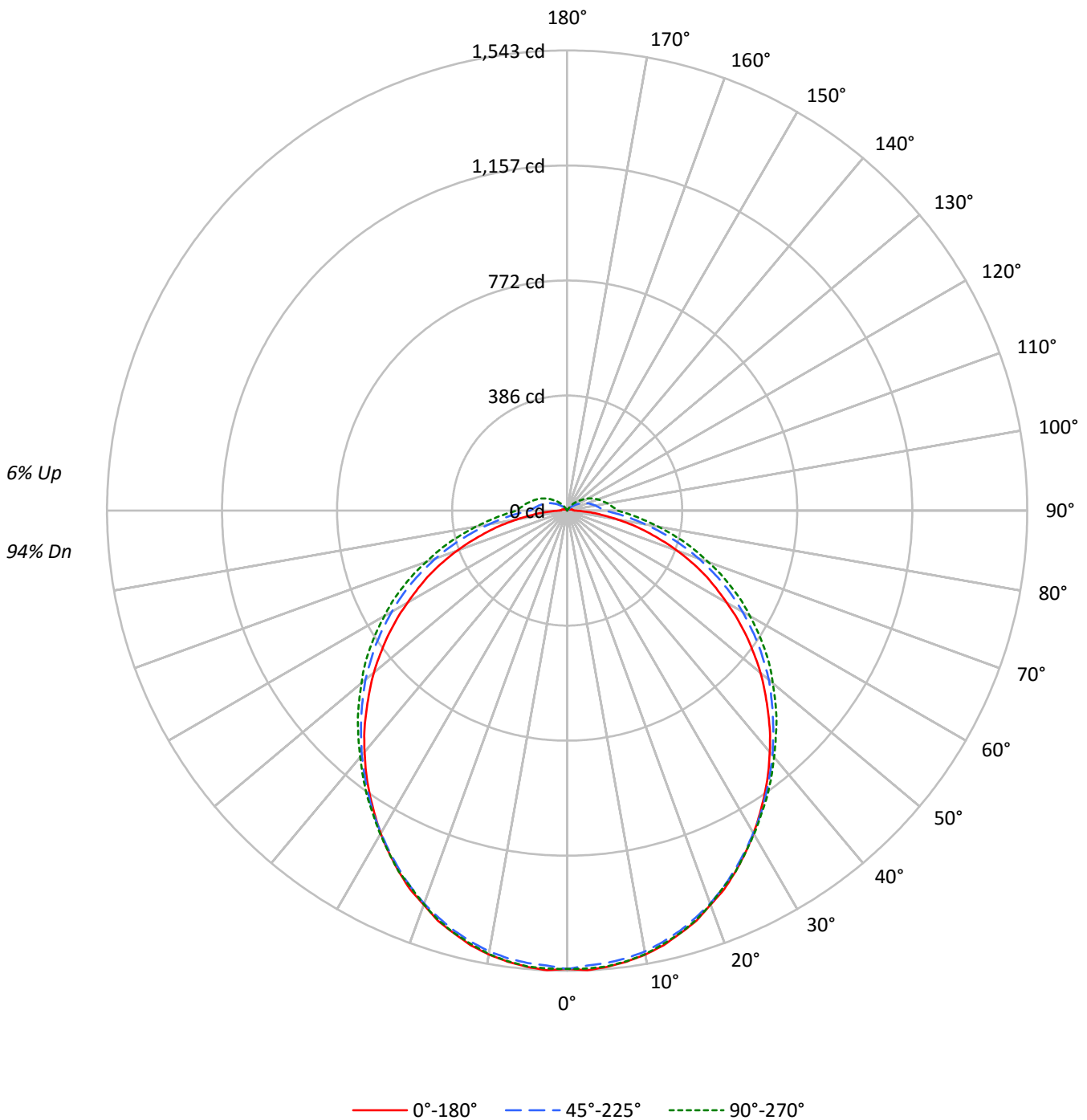
Input Watts (W): 37.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P243713

CATALOG NUMBER: S125DR-H1270D840-X4F0-XX-UDD-D-W

### Luminous Intensity Polar Plot





TEST NUMBER: P243713

CATALOG NUMBER: S125DR-H1270D840-X4F0-XX-UDD-D-W

**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°	10924	10924	10924
5°	10935	10709	10745
10°	10867	10528	10503
15°	10735	10277	10203
20°	10554	10000	9861
25°	10368	9678	9525
30°	10133	9351	9155
35°	9884	9032	8826
40°	9631	8723	8496
45°	9364	8413	8226
50°	9127	8156	7940
55°	8829	7840	7678
60°	8468	7497	7344
65°	8175	7135	7017
70°	7693	6691	6590
75°	7041	6166	6213
80°	6271	5600	5738
85°	5577	5238	5459



TEST NUMBER: P243713

CATALOG NUMBER: S125DR-H1270D840-X4F0-XX-UDD-D-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.4	3.0
10°-20°	413.2	8.7
20°-30°	615.1	12.9
30°-40°	728.7	15.3
40°-50°	754.0	15.8
50°-60°	695.4	14.6
60°-70°	562.0	11.8
70°-80°	375.5	7.9
80°-90°	193.7	4.1
90°-100°	108.6	2.3
100°-110°	80.6	1.7
110°-120°	53.6	1.1
120°-130°	30.0	0.6
130°-140°	13.5	0.3
140°-150°	2.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1173.7	24.6
0°-40°	1902.4	39.9
0°-60°	3351.8	70.2
0°-90°	4483.0	93.9
90°-120°	242.9	5.1
90°-150°	289.2	6.1
90°-180°	289.0	6.1
0°-180°	4772.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1536	1534	1523	1534	1534	146
15°	1467	1472	1459	1467	1466	414
25°	1335	1341	1330	1337	1335	615
35°	1156	1165	1162	1168	1169	723
45°	952	967	976	992	993	735
55°	734	757	783	801	808	656
65°	508	538	575	601	608	501
75°	277	318	364	395	406	294
85°	85	134	186	219	230	88
90°	24	71	124	158	169	17
95°	20	60	109	142	152	16
105°	14	38	84	114	124	15
115°	10	20	58	85	95	9
125°	6	6	34	55	65	5
135°	3	3	13	33	38	2
145°	1	0	0	8	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



TEST NUMBER: P243713

CATALOG NUMBER: S125DR-H1270D840-X4F0-XX-UDD-D-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1537.0	1537.0	1537.0	1537.0	1537.0
2.5°	1542.7	1538.4	1527.0	1538.4	1537.0
5°	1535.6	1534.1	1522.8	1534.1	1534.1
7.5°	1525.6	1524.2	1514.2	1525.6	1524.2
10°	1511.4	1511.4	1501.5	1510.0	1510.0
12.5°	1492.9	1492.9	1481.6	1491.5	1488.7
15°	1467.4	1471.6	1458.8	1467.4	1465.9
17.5°	1441.8	1441.8	1431.9	1439.0	1439.0
20°	1406.3	1412.0	1402.0	1409.1	1404.9
22.5°	1375.0	1377.9	1367.9	1375.0	1367.9
25°	1335.3	1340.9	1329.6	1336.7	1335.3
27.5°	1294.1	1298.3	1289.8	1298.3	1294.1
30°	1250.0	1254.3	1248.6	1254.3	1252.9
32.5°	1203.2	1211.7	1207.4	1211.7	1210.3
35°	1156.3	1164.8	1162.0	1167.6	1169.1
37.5°	1108.0	1116.5	1116.5	1123.6	1125.0
40°	1056.8	1068.2	1071.1	1081.0	1079.6
42.5°	1007.1	1018.5	1022.8	1035.5	1035.5
45°	951.7	967.4	975.9	991.5	992.9
47.5°	899.2	916.2	929.0	943.2	946.0
50°	846.6	862.2	883.5	897.8	900.6
52.5°	789.8	809.7	831.0	850.9	856.6
55°	734.4	757.1	782.7	801.2	808.3
57.5°	677.6	701.7	730.1	752.9	758.5
60°	617.9	646.3	679.0	701.7	707.4
62.5°	562.5	593.8	627.9	652.0	660.5
65°	508.5	538.4	575.3	600.9	608.0
67.5°	450.3	483.0	521.3	549.7	556.8
70°	392.1	427.6	468.8	495.8	502.9
72.5°	332.4	372.2	416.2	446.0	454.6
75°	277.0	318.2	363.6	394.9	406.3
77.5°	224.4	267.1	312.5	345.2	355.1
80°	171.9	215.9	265.6	299.7	309.7
82.5°	125.0	171.9	223.0	257.1	267.1
85°	85.2	133.5	186.1	218.8	230.1
87.5°	52.6	99.4	153.4	186.1	197.4
90°	24.1	71.0	123.6	157.7	169.0
92.5°	21.3	65.3	116.5	150.6	160.5
95°	19.9	59.7	109.4	142.0	152.0
97.5°	18.5	54.0	102.3	134.9	144.9
100°	17.0	48.3	96.6	127.8	137.8
102.5°	15.6	44.0	89.5	120.7	129.3
105°	14.2	38.4	83.8	113.6	123.6
107.5°	12.8	32.7	78.1	106.5	116.5
110°	11.4	28.4	71.0	99.4	109.4



TEST NUMBER: P243713

CATALOG NUMBER: S125DR-H1270D840-X4F0-XX-UDD-D-W

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	9.9	24.1	65.3	92.3	102.3
115°	9.9	19.9	58.2	85.2	95.2
117.5°	8.5	15.6	51.1	78.1	88.1
120°	7.1	11.4	45.5	71.0	81.0
122.5°	7.1	8.5	39.8	63.9	73.9
125°	5.7	5.7	34.1	55.4	65.3
127.5°	5.7	4.3	28.4	49.7	56.8
130°	4.3	2.8	24.1	44.0	51.1
132.5°	4.3	2.8	18.5	38.4	45.5
135°	2.8	2.8	12.8	32.7	38.4
137.5°	2.8	1.4	8.5	25.6	32.7
140°	1.4	1.4	2.8	19.9	25.6
142.5°	1.4	1.4	1.4	14.2	19.9
145°	1.4	0.0	0.0	8.5	12.8
147.5°	1.4	0.0	0.0	2.8	7.1
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)