

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: P231733

Luminaire Tested: **S122-RDR-2-35-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231733  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33911)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122-RDR-2-35-X-0048-1-U-DD-1-W  
Description: DEFINE 2 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3229.5 lumens  
Efficiency: N/A  
Efficacy: 75.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.12  
Luminous Opening: Rectangular (W 0.14' x L: 3.92' x H: 0')  
CIE Type: Direct

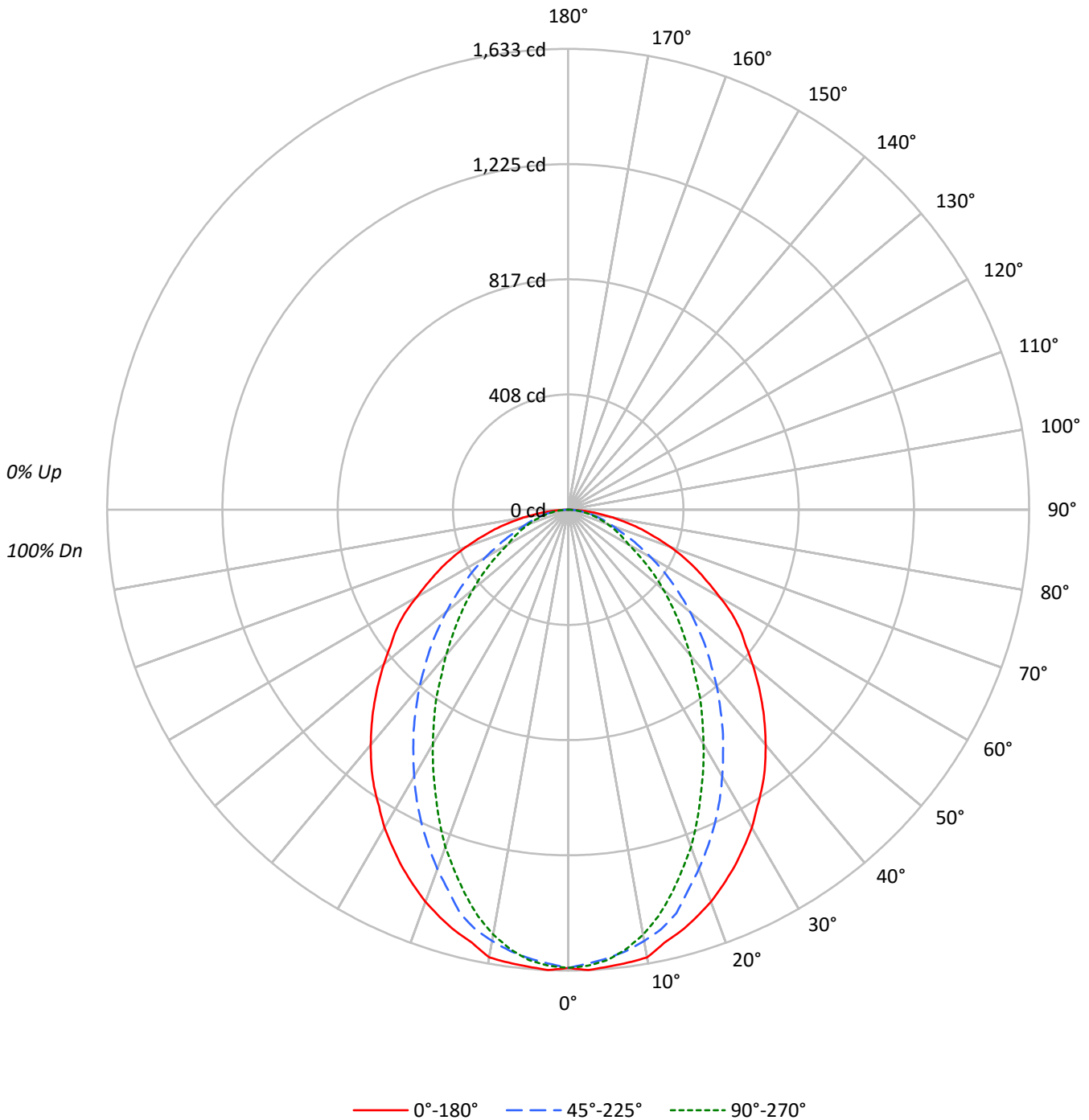
Input Watts (W): 42.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	100	100	100	100	100		
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86	86	86	86	86	86	86		
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74	74	74	74	74	74	74		
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64	64	64	64	64	64	64		
4	86	75	67	60	84	73	66	60	71	64	59	69	63	58	67	62	58	56	56	56	56	56	56	56		
5	79	67	59	53	77	66	59	53	64	57	52	62	56	52	61	55	51	49	49	49	49	49	49	49		
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44	44	44	44	44	44	44		
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39	39	39	39	39	39	39		
8	64	51	43	38	63	51	43	38	49	43	38	48	42	37	47	41	37	35	35	35	35	35	35	35		
9	60	48	40	34	59	47	39	34	46	39	34	45	39	34	44	38	34	32	32	32	32	32	32	32		
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	29	29	29	29	29	29	29		

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

	0°	45°	90°
0°	31871	31871	31871
5°	32023	31439	31564
10°	32114	30934	30469
15°	31413	30083	28661
20°	30892	28291	26568
25°	30208	26602	24072
30°	29496	24734	21735
35°	28723	22866	19509
40°	27883	20982	17233
45°	26964	19144	15255
50°	26050	17209	13407
55°	25517	15343	11612
60°	24384	13321	9717
65°	23354	11278	9109
70°	22154	9562	8489
75°	20425	8851	7789
80°	18121	7913	7043
85°	15428	7005	6306



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.1	4.7
10°-20°	414.9	12.8
20°-30°	571.8	17.7
30°-40°	611.8	18.9
40°-50°	557.7	17.3
50°-60°	439.6	13.6
60°-70°	289.6	9.0
70°-80°	151.2	4.7
80°-90°	40.8	1.3
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°	1138.8	35.3
0°-40°	1750.6	54.2
0°-60°	2747.9	85.1
0°-90°	3229.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3229.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1624	1624	1624	1624	1624	
5°	1625	1616	1596	1608	1602	155
15°	1546	1522	1480	1435	1410	436
25°	1395	1342	1228	1150	1111	642
35°	1199	1108	954	848	814	749
45°	971	858	690	584	550	750
55°	746	610	448	366	339	663
65°	503	372	243	201	196	497
75°	269	159	117	106	103	284
85°	68	34	31	30	28	77
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1623.6	1623.6	1623.6	1623.6	1623.6
2.5°	1632.9	1625.1	1609.5	1622.0	1617.3
5°	1625.1	1615.8	1595.5	1608.0	1601.8
7.5°	1618.9	1604.9	1576.9	1581.5	1570.6
10°	1611.1	1594.0	1551.9	1541.1	1528.6
12.5°	1572.2	1562.8	1522.4	1491.2	1475.7
15°	1545.7	1522.4	1480.3	1435.2	1410.3
17.5°	1513.0	1486.6	1413.4	1369.8	1340.2
20°	1478.8	1441.4	1354.3	1306.0	1271.8
22.5°	1436.8	1396.3	1292.0	1231.3	1192.4
25°	1394.7	1341.8	1228.2	1150.3	1111.4
27.5°	1348.0	1287.3	1161.2	1075.6	1035.2
30°	1301.3	1229.7	1091.2	997.8	958.9
32.5°	1246.9	1170.6	1021.1	918.4	884.2
35°	1198.6	1108.3	954.2	848.4	814.1
37.5°	1145.7	1047.6	884.2	776.8	736.3
40°	1088.1	983.8	818.8	709.8	672.5
42.5°	1030.5	921.5	750.3	641.3	608.6
45°	971.3	857.7	689.6	583.7	549.5
47.5°	912.2	797.0	624.2	524.6	493.4
50°	853.0	734.7	563.5	470.1	439.0
52.5°	793.9	672.5	504.3	415.6	389.2
55°	745.6	610.2	448.3	365.8	339.3
57.5°	688.0	551.0	393.8	317.6	291.1
60°	621.1	488.8	339.3	266.2	247.5
62.5°	557.3	431.2	288.0	228.8	221.0
65°	502.8	372.0	242.8	200.8	196.1
67.5°	443.6	316.0	196.1	175.9	171.2
70°	386.0	261.5	166.6	151.0	147.9
72.5°	322.2	207.0	141.7	127.6	124.5
75°	269.3	158.8	116.7	105.9	102.7
77.5°	211.7	115.2	91.8	84.1	82.5
80°	160.3	84.1	70.0	65.4	62.3
82.5°	107.4	57.6	48.3	46.7	45.1
85°	68.5	34.2	31.1	29.6	28.0
87.5°	28.0	15.6	14.0	12.5	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)