

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: P242268

Luminaire Tested: **S122DR-S1005D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242268  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-S1005D840-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3960.2 lumens  
Efficiency: N/A  
Efficacy: 96.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct

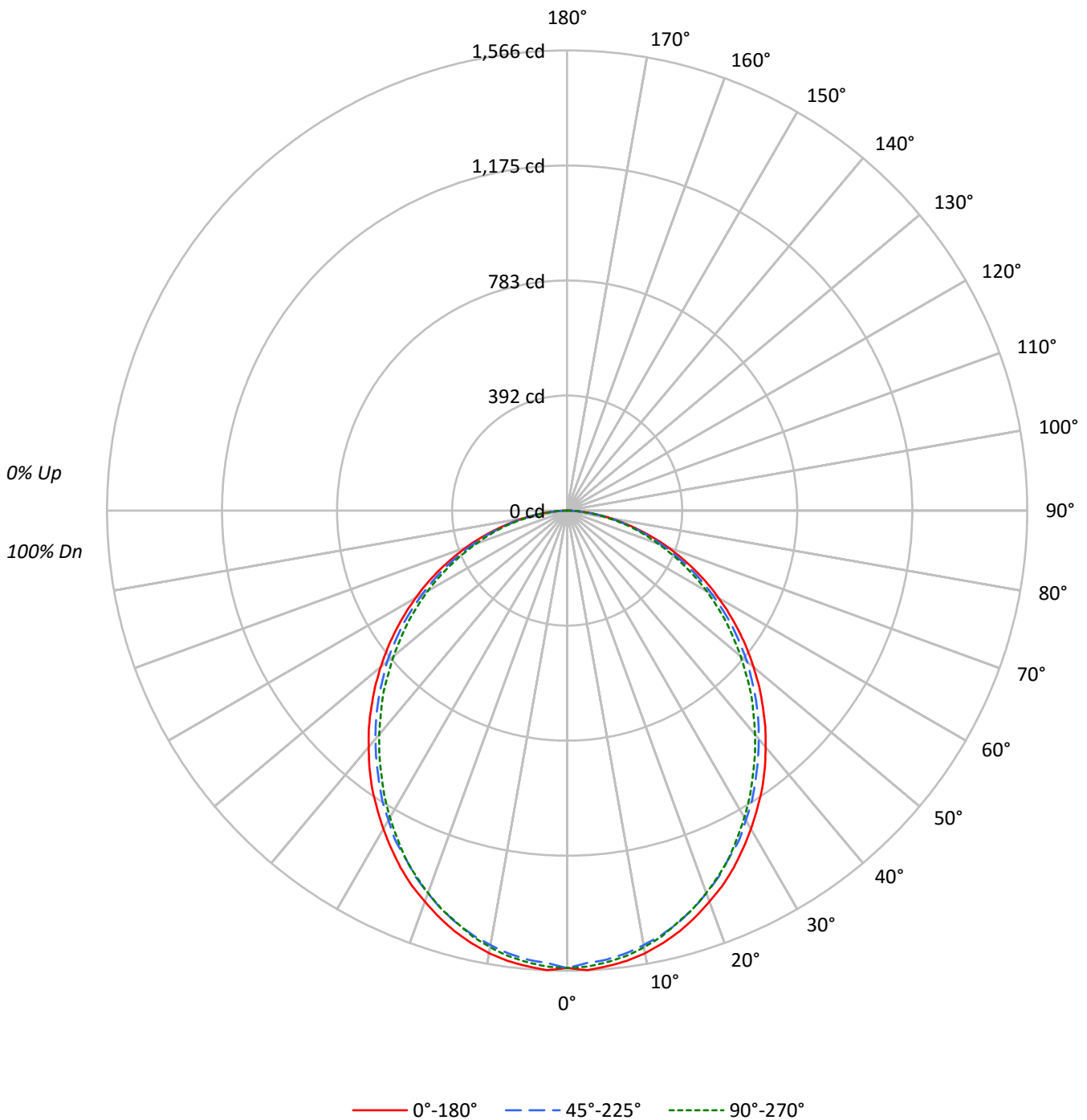
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26

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

	0°	45°	90°
0°	29650	29650	29650
5°	29763	29333	29505
10°	29585	29036	29181
15°	29219	28659	28629
20°	28701	28092	28062
25°	28184	27398	27398
30°	27519	26763	26532
35°	26901	25997	25615
40°	26126	25233	24748
45°	25359	24473	23867
50°	24527	23683	22841
55°	23658	22765	21918
60°	22693	21665	20869
65°	21652	20575	19628
70°	20339	19253	18339
75°	18502	17736	17295
80°	16421	15927	15105
85°	13419	12763	11452



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.5	3.7
10°-20°	412.2	10.4
20°-30°	605.7	15.3
30°-40°	703.5	17.8
40°-50°	702.7	17.7
50°-60°	612.7	15.5
60°-70°	452.9	11.4
70°-80°	256.3	6.5
80°-90°	67.6	1.7
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°	1164.4	29.4
0°-40°	1868.0	47.2
0°-60°	3183.4	80.4
0°-90°	3960.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3960.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1557	1557	1557	1557	1557	
5°	1557	1551	1534	1546	1543	148
15°	1482	1473	1453	1459	1452	417
25°	1341	1329	1304	1307	1304	617
35°	1157	1142	1118	1109	1102	722
45°	941	931	908	892	886	727
55°	712	703	686	668	660	637
65°	480	472	456	443	436	475
75°	251	248	241	232	235	268
85°	61	60	58	54	52	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1556.6	1556.6	1556.6	1556.6	1556.6
2.5°	1565.5	1558.1	1541.6	1556.6	1553.6
5°	1556.6	1550.6	1534.1	1546.1	1543.1
7.5°	1546.1	1537.1	1520.6	1532.6	1529.6
10°	1529.6	1519.2	1501.2	1513.2	1508.7
12.5°	1507.2	1498.2	1480.2	1487.7	1484.7
15°	1481.7	1472.8	1453.3	1459.3	1451.8
17.5°	1450.3	1441.3	1421.9	1429.3	1421.9
20°	1415.9	1406.9	1385.9	1390.4	1384.4
22.5°	1381.5	1368.0	1348.5	1348.5	1345.5
25°	1341.0	1329.1	1303.6	1306.6	1303.6
27.5°	1296.1	1285.7	1266.2	1261.7	1254.2
30°	1251.2	1239.3	1216.8	1212.3	1206.3
32.5°	1203.3	1194.4	1170.4	1161.4	1155.5
35°	1156.9	1142.0	1118.0	1109.1	1101.6
37.5°	1104.6	1091.1	1067.1	1056.7	1049.2
40°	1050.7	1038.7	1014.8	1001.3	995.3
42.5°	998.3	986.3	962.4	947.4	938.4
45°	941.4	930.9	908.5	892.0	886.0
47.5°	886.0	875.6	851.6	835.2	826.2
50°	827.7	820.2	799.2	778.3	770.8
52.5°	770.8	760.3	740.9	724.4	713.9
55°	712.4	703.4	685.5	667.5	660.0
57.5°	654.1	646.6	627.1	609.2	603.2
60°	595.7	589.7	568.7	552.3	547.8
62.5°	538.8	528.3	513.4	498.4	492.4
65°	480.4	471.5	456.5	443.0	435.5
67.5°	420.6	413.1	399.6	389.1	383.2
70°	365.2	359.2	345.7	335.3	329.3
72.5°	308.3	302.3	294.8	284.4	279.9
75°	251.4	248.5	241.0	232.0	235.0
77.5°	200.6	194.6	191.6	187.1	182.6
80°	149.7	148.2	145.2	140.7	137.7
82.5°	101.8	101.8	100.3	94.3	94.3
85°	61.4	59.9	58.4	53.9	52.4
87.5°	26.9	23.9	21.0	16.5	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)