

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: P242283

Luminaire Tested: **S122DR-S1005D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242283  
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-S1005D940-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3496.8 lumens  
Efficiency: N/A  
Efficacy: 85.1 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

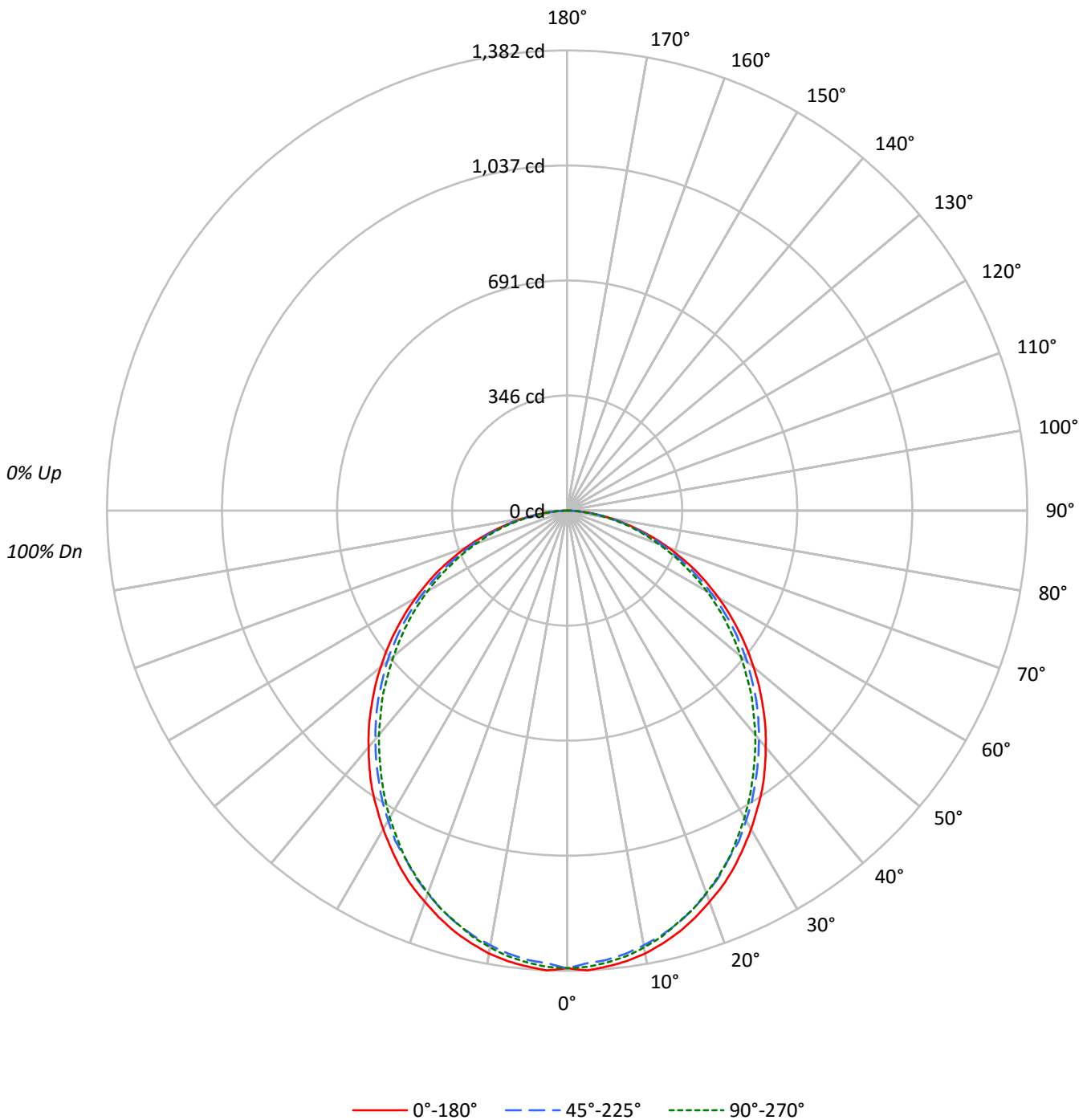
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	26179	26179	26179
5°	26279	25901	26054
10°	26125	25639	25767
15°	25801	25306	25279
20°	25342	24807	24780
25°	24886	24192	24192
30°	24299	23631	23428
35°	23755	22955	22618
40°	23070	22279	21854
45°	22393	21609	21076
50°	21656	20912	20168
55°	20892	20101	19354
60°	20038	19132	18427
65°	19119	18168	17334
70°	17961	17003	16190
75°	16338	15661	15271
80°	14501	14062	13338
85°	11845	11255	10119



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.4	3.7
10°-20°	364.0	10.4
20°-30°	534.9	15.3
30°-40°	621.2	17.8
40°-50°	620.5	17.7
50°-60°	541.0	15.5
60°-70°	399.9	11.4
70°-80°	226.3	6.5
80°-90°	59.7	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°	1028.2	29.4
0°-40°	1649.4	47.2
0°-60°	2810.9	80.4
0°-90°	3496.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3496.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1374	1374	1374	1374	1374	
5°	1374	1369	1355	1365	1363	130
15°	1308	1300	1283	1288	1282	368
25°	1184	1174	1151	1154	1151	545
35°	1022	1008	987	979	973	638
45°	831	822	802	788	782	642
55°	629	621	605	589	583	562
65°	424	416	403	391	385	419
75°	222	219	213	205	208	237
85°	54	53	52	48	46	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1374.4	1374.4	1374.4	1374.4	1374.4
2.5°	1382.4	1375.8	1361.2	1374.4	1371.8
5°	1374.4	1369.2	1354.6	1365.2	1362.6
7.5°	1365.2	1357.3	1342.7	1353.3	1350.7
10°	1350.7	1341.4	1325.6	1336.1	1332.2
12.5°	1330.8	1322.9	1307.0	1313.7	1311.0
15°	1308.4	1300.4	1283.3	1288.5	1281.9
17.5°	1280.6	1272.7	1255.5	1262.1	1255.5
20°	1250.2	1242.3	1223.8	1227.8	1222.5
22.5°	1219.8	1207.9	1190.7	1190.7	1188.1
25°	1184.1	1173.6	1151.1	1153.7	1151.1
27.5°	1144.5	1135.2	1118.1	1114.1	1107.5
30°	1104.8	1094.3	1074.4	1070.5	1065.2
32.5°	1062.6	1054.6	1033.5	1025.6	1020.3
35°	1021.6	1008.4	987.2	979.3	972.7
37.5°	975.3	963.4	942.3	933.0	926.4
40°	927.8	917.2	896.0	884.1	878.9
42.5°	881.5	870.9	849.8	836.6	828.6
45°	831.3	822.0	802.2	787.7	782.4
47.5°	782.4	773.1	752.0	737.4	729.5
50°	730.8	724.2	705.7	687.2	680.6
52.5°	680.6	671.4	654.2	639.6	630.4
55°	629.1	621.1	605.3	589.4	582.8
57.5°	577.5	570.9	553.7	537.9	532.6
60°	526.0	520.7	502.2	487.7	483.7
62.5°	475.8	466.5	453.3	440.1	434.8
65°	424.2	416.3	403.1	391.2	384.6
67.5°	371.4	364.8	352.9	343.6	338.3
70°	322.5	317.2	305.3	296.0	290.7
72.5°	272.2	267.0	260.4	251.1	247.1
75°	222.0	219.4	212.8	204.8	207.5
77.5°	177.1	171.8	169.2	165.2	161.2
80°	132.2	130.8	128.2	124.2	121.6
82.5°	89.9	89.9	88.5	83.3	83.3
85°	54.2	52.9	51.5	47.6	46.3
87.5°	23.8	21.1	18.5	14.5	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)