

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: P242598

Luminaire Tested: **S124DR-S1195D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242598  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DR-S1195D927-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3760.8 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

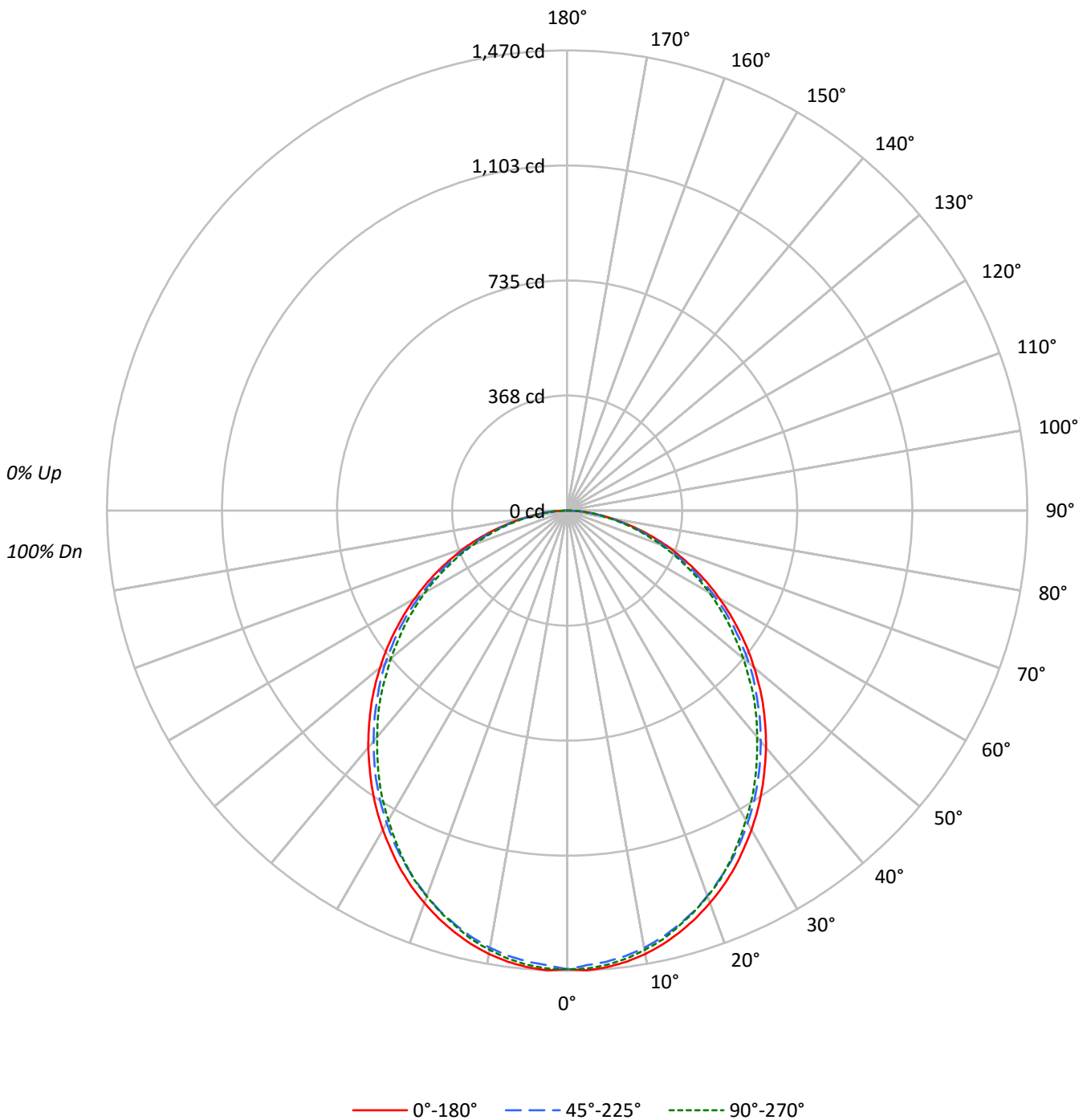
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60					60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51					51			
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44					44			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25					25			

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

	0°	45°	90°
0°	13024	13024	13024
5°	13064	12907	13001
10°	12981	12802	12865
15°	12825	12619	12652
20°	12617	12395	12405
25°	12378	12137	12103
30°	12087	11833	11726
35°	11785	11518	11365
40°	11471	11158	10954
45°	11143	10803	10597
50°	10781	10489	10164
55°	10389	10079	9752
60°	9998	9621	9330
65°	9557	9187	8815
70°	9063	8605	8270
75°	8308	7903	7700
80°	7392	7090	6911
85°	6466	6232	6109



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.1	3.7
10°-20°	389.1	10.3
20°-30°	572.6	15.2
30°-40°	665.6	17.7
40°-50°	665.6	17.7
50°-60°	582.1	15.5
60°-70°	432.2	11.5
70°-80°	245.2	6.5
80°-90°	70.2	1.9
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°	1099.8	29.2
0°-40°	1765.5	46.9
0°-60°	3013.2	80.1
0°-90°	3760.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3760.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1465	1465	1465	1465	1465	
5°	1464	1459	1446	1459	1457	139
15°	1394	1389	1371	1378	1375	393
25°	1262	1254	1238	1239	1234	581
35°	1086	1078	1061	1053	1047	679
45°	886	878	859	846	843	683
55°	670	667	650	636	629	601
65°	454	448	437	425	419	450
75°	242	236	230	225	224	257
85°	63	63	61	61	60	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1465.2	1465.2	1465.2	1465.2	1465.2
2.5°	1469.9	1466.4	1453.5	1465.2	1464.1
5°	1464.1	1459.4	1446.5	1459.4	1457.0
7.5°	1453.5	1448.8	1434.7	1445.3	1444.1
10°	1438.2	1433.5	1418.3	1427.7	1425.3
12.5°	1418.3	1413.6	1397.2	1407.7	1404.2
15°	1393.6	1388.9	1371.3	1378.4	1374.8
17.5°	1365.5	1359.6	1343.1	1347.8	1345.5
20°	1333.8	1327.9	1310.3	1313.8	1311.4
22.5°	1299.7	1291.5	1273.9	1280.9	1276.2
25°	1262.1	1253.9	1237.5	1238.7	1234.0
27.5°	1219.9	1211.6	1196.4	1194.0	1188.2
30°	1177.6	1168.2	1152.9	1148.2	1142.4
32.5°	1133.0	1124.8	1108.3	1102.5	1096.6
35°	1086.0	1077.8	1061.4	1053.1	1047.3
37.5°	1036.7	1029.7	1012.1	1003.8	995.6
40°	988.6	979.2	961.6	949.8	944.0
42.5°	936.9	932.2	912.3	898.2	894.6
45°	886.4	878.2	859.4	846.5	843.0
47.5°	833.6	827.7	810.1	796.0	786.6
50°	779.6	774.9	758.5	742.0	735.0
52.5°	726.8	720.9	703.3	689.2	679.8
55°	670.4	666.9	650.4	636.3	629.3
57.5°	617.6	614.0	597.6	583.5	576.5
60°	562.4	556.5	541.2	530.7	524.8
62.5°	508.4	503.7	487.2	477.8	472.0
65°	454.4	448.5	436.8	425.0	419.1
67.5°	399.2	394.5	382.7	371.0	369.8
70°	348.7	340.5	331.1	321.7	318.2
72.5°	294.7	286.5	279.4	272.4	268.9
75°	241.9	236.0	230.1	225.4	224.2
77.5°	190.2	187.9	182.0	180.8	177.3
80°	144.4	140.9	138.5	136.2	135.0
82.5°	99.8	98.6	98.6	97.4	96.3
85°	63.4	63.4	61.1	61.1	59.9
87.5°	30.5	29.4	28.2	28.2	28.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)