

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: P243480

Luminaire Tested: **S124DR-H795D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243480  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DR-H795D935-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2724.1 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

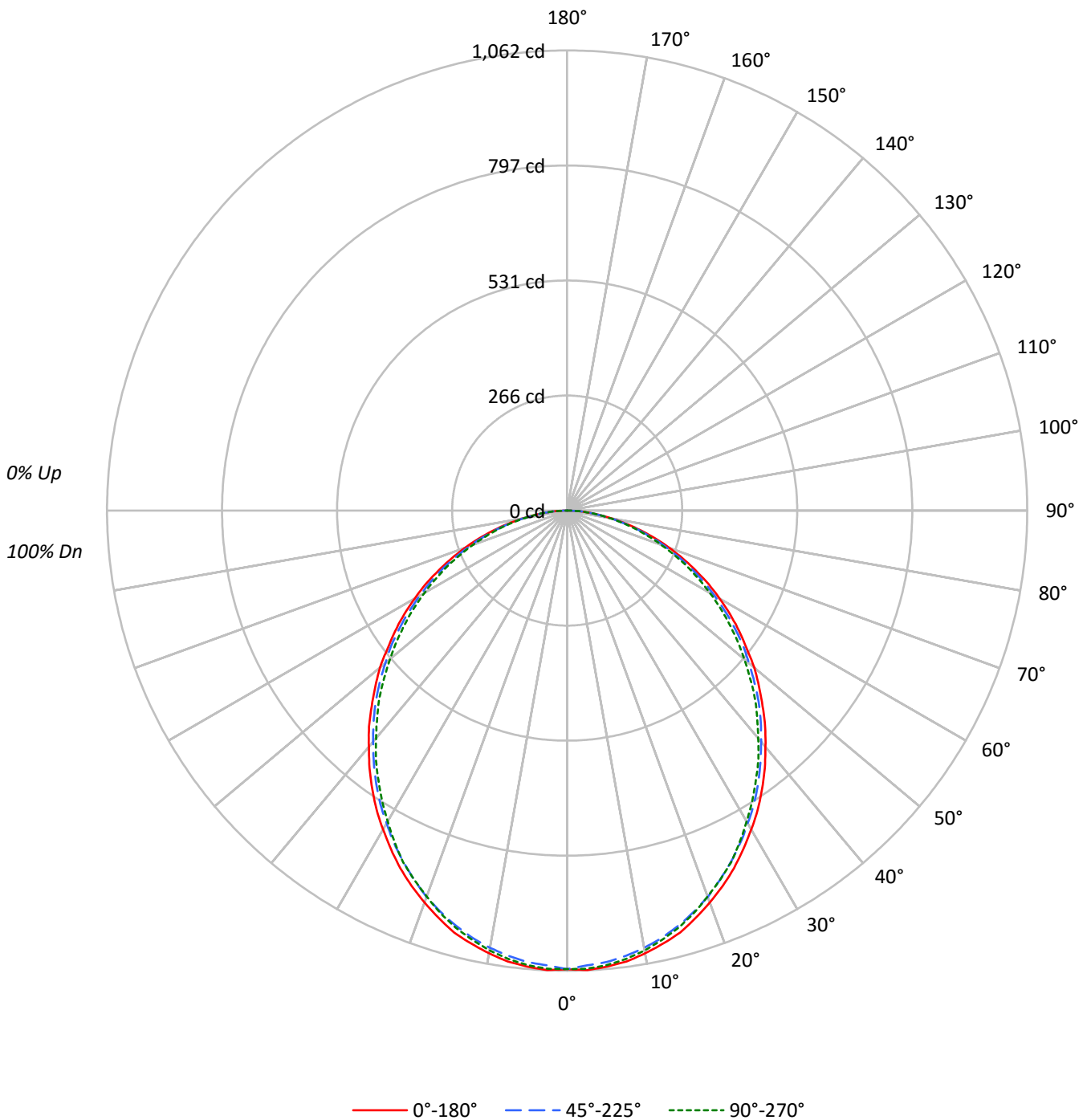
Input Watts (W): 23.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	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	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	9406	9406	9406
5°	9426	9334	9396
10°	9365	9248	9302
15°	9278	9128	9168
20°	9106	8975	8967
25°	8934	8774	8782
30°	8722	8554	8502
35°	8512	8344	8241
40°	8262	8082	7962
45°	8020	7858	7706
50°	7799	7573	7382
55°	7512	7312	7085
60°	7225	6980	6766
65°	6882	6646	6430
70°	6513	6222	6019
75°	6003	5766	5588
80°	5288	5201	5068
85°	4651	4651	4569



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.8	3.7
10°-20°	281.3	10.3
20°-30°	414.2	15.2
30°-40°	481.9	17.7
40°-50°	482.2	17.7
50°-60°	421.7	15.5
60°-70°	313.2	11.5
70°-80°	178.4	6.6
80°-90°	51.4	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°	795.3	29.2
0°-40°	1277.2	46.9
0°-60°	2181.0	80.1
0°-90°	2724.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2724.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1058	1058	1058	1058	1058	
5°	1056	1055	1046	1054	1053	100
15°	1008	1003	992	998	996	284
25°	911	907	895	897	895	419
35°	784	778	769	762	759	490
45°	638	635	625	616	613	493
55°	485	481	472	462	457	433
65°	327	325	316	309	306	325
75°	175	171	168	164	163	185
85°	46	45	46	44	45	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1058.2	1058.2	1058.2	1058.2	1058.2
2.5°	1061.6	1059.0	1050.4	1059.0	1058.2
5°	1056.4	1054.7	1046.1	1053.9	1053.0
7.5°	1049.6	1046.1	1036.6	1044.4	1043.5
10°	1037.5	1034.9	1024.6	1032.3	1030.6
12.5°	1023.7	1021.1	1010.0	1016.0	1014.3
15°	1008.2	1003.1	991.9	997.9	996.2
17.5°	985.8	982.4	971.2	976.4	973.8
20°	962.6	958.3	948.8	949.7	948.0
22.5°	937.6	933.3	922.1	925.6	922.1
25°	910.9	906.6	894.6	897.2	895.4
27.5°	880.8	876.5	865.3	866.2	862.7
30°	849.8	844.6	833.4	832.6	828.3
32.5°	818.8	813.6	802.5	799.0	794.7
35°	784.4	777.5	768.9	762.0	759.4
37.5°	749.1	745.6	732.7	728.4	725.0
40°	712.0	708.6	696.5	690.5	686.2
42.5°	676.7	672.4	661.2	652.6	649.2
45°	638.0	635.4	625.1	615.6	613.0
47.5°	600.1	599.3	586.3	576.9	572.6
50°	564.0	558.8	547.6	539.0	533.8
52.5°	521.8	520.9	511.4	500.2	495.9
55°	484.7	481.3	471.8	461.5	457.2
57.5°	446.0	444.3	432.2	423.6	419.3
60°	406.4	402.9	392.6	384.9	380.6
62.5°	368.5	364.2	354.7	347.0	342.7
65°	327.2	324.6	316.0	309.1	305.7
67.5°	288.4	285.0	276.4	270.4	266.9
70°	250.6	245.4	239.4	234.2	231.6
72.5°	212.7	208.4	203.2	199.8	196.3
75°	174.8	171.3	167.9	164.5	162.7
77.5°	138.6	135.2	133.5	132.6	130.9
80°	103.3	101.6	101.6	100.7	99.0
82.5°	73.2	71.5	71.5	71.5	70.6
85°	45.6	44.8	45.6	43.9	44.8
87.5°	21.5	21.5	22.4	21.5	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)