

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: P242597

Luminaire Tested: **S124DR-S1020D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242597
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-S1020D927-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: 3236.0 lumens
Efficiency: N/A
Efficacy: 93.0 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

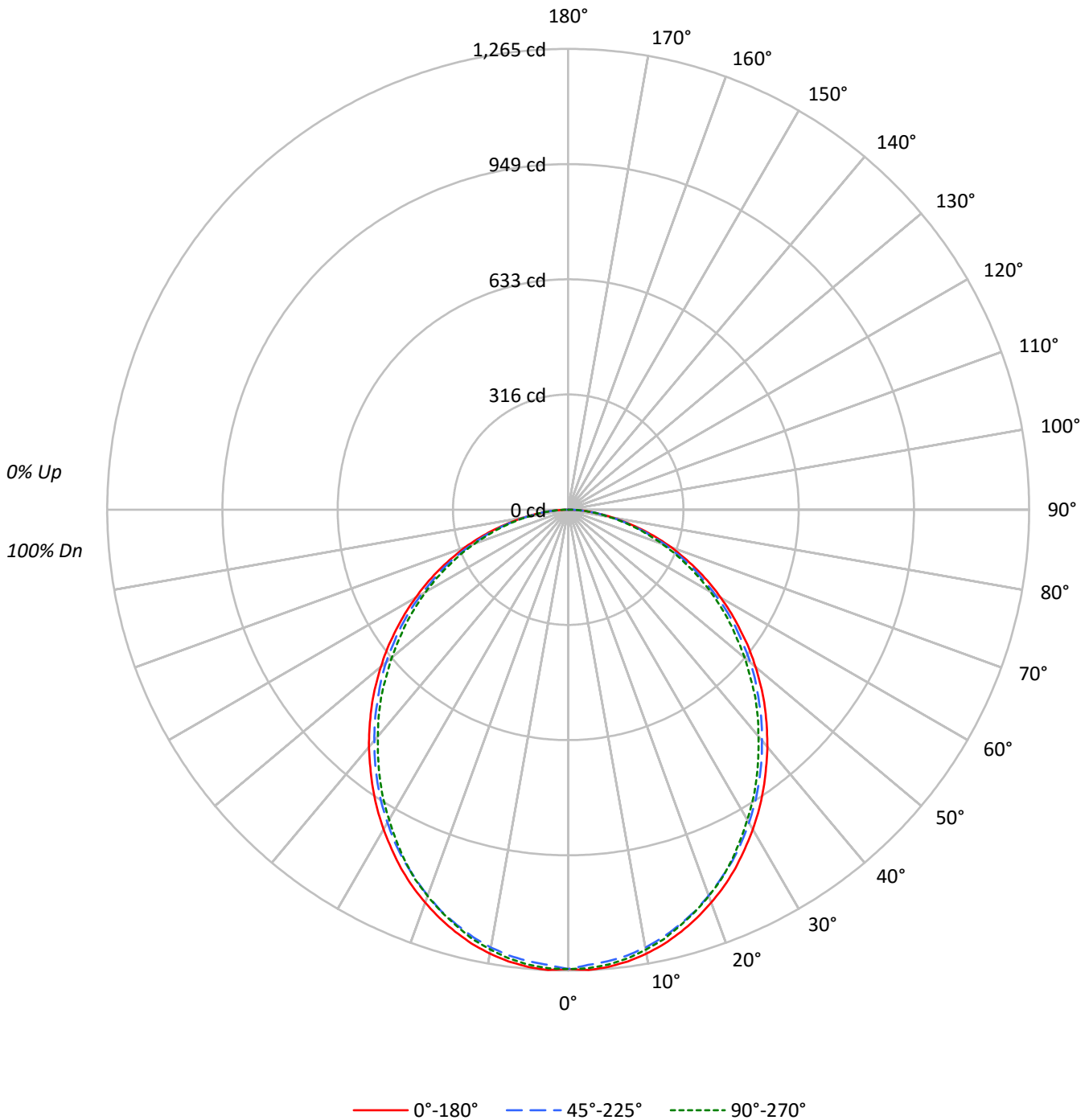
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	11207	11207	11207
5°	11241	11105	11187
10°	11170	11015	11070
15°	11035	10858	10887
20°	10856	10665	10674
25°	10651	10443	10414
30°	10401	10182	10090
35°	10141	9909	9778
40°	9870	9601	9424
45°	9588	9296	9118
50°	9276	9025	8745
55°	8939	8674	8392
60°	8603	8279	8028
65°	8224	7904	7587
70°	7797	7404	7116
75°	7147	6800	6628
80°	6363	6102	5948
85°	5569	5354	5252



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.8	3.7
10°-20°	334.8	10.3
20°-30°	492.7	15.2
30°-40°	572.8	17.7
40°-50°	572.7	17.7
50°-60°	500.9	15.5
60°-70°	371.9	11.5
70°-80°	211.0	6.5
80°-90°	60.4	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°	946.3	29.2
0°-40°	1519.1	46.9
0°-60°	2592.7	80.1
0°-90°	3236.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3236.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1261	1261	1261	1261	1261	
5°	1260	1256	1245	1256	1254	120
15°	1199	1195	1180	1186	1183	338
25°	1086	1079	1065	1066	1062	500
35°	934	927	913	906	901	584
45°	763	756	740	728	725	588
55°	577	574	560	548	542	517
65°	391	386	376	366	361	387
75°	208	203	198	194	193	221
85°	55	55	52	52	52	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1260.8	1260.8	1260.8	1260.8	1260.8
2.5°	1264.8	1261.8	1250.7	1260.8	1259.8
5°	1259.8	1255.7	1244.6	1255.7	1253.7
7.5°	1250.7	1246.6	1234.5	1243.6	1242.6
10°	1237.5	1233.5	1220.4	1228.4	1226.4
12.5°	1220.4	1216.3	1202.2	1211.3	1208.2
15°	1199.1	1195.1	1179.9	1186.0	1183.0
17.5°	1174.9	1169.8	1155.7	1159.7	1157.7
20°	1147.6	1142.6	1127.4	1130.4	1128.4
22.5°	1118.3	1111.3	1096.1	1102.2	1098.1
25°	1086.0	1078.9	1064.8	1065.8	1061.8
27.5°	1049.6	1042.6	1029.4	1027.4	1022.4
30°	1013.3	1005.2	992.0	988.0	983.0
32.5°	974.9	967.8	953.7	948.6	943.6
35°	934.5	927.4	913.2	906.2	901.1
37.5°	892.0	886.0	870.8	863.7	856.7
40°	850.6	842.5	827.4	817.3	812.2
42.5°	806.2	802.1	784.9	772.8	769.8
45°	762.7	755.7	739.5	728.4	725.3
47.5°	717.3	712.2	697.1	684.9	676.9
50°	670.8	666.8	652.6	638.5	632.4
52.5°	625.3	620.3	605.1	593.0	584.9
55°	576.8	573.8	559.7	547.5	541.5
57.5°	531.4	528.3	514.2	502.1	496.0
60°	483.9	478.8	465.7	456.6	451.6
62.5°	437.4	433.4	419.2	411.2	406.1
65°	391.0	385.9	375.8	365.7	360.7
67.5°	343.5	339.4	329.3	319.2	318.2
70°	300.0	293.0	284.9	276.8	273.8
72.5°	253.6	246.5	240.4	234.4	231.3
75°	208.1	203.1	198.0	194.0	193.0
77.5°	163.7	161.6	156.6	155.6	152.5
80°	124.3	121.2	119.2	117.2	116.2
82.5°	85.9	84.9	84.9	83.8	82.8
85°	54.6	54.6	52.5	52.5	51.5
87.5°	26.3	25.3	24.2	24.2	24.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)