

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: P242105

Luminaire Tested: **S121DR-S880D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242105
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-S880D935-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3019.8 lumens
Efficiency: N/A
Efficacy: 86.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

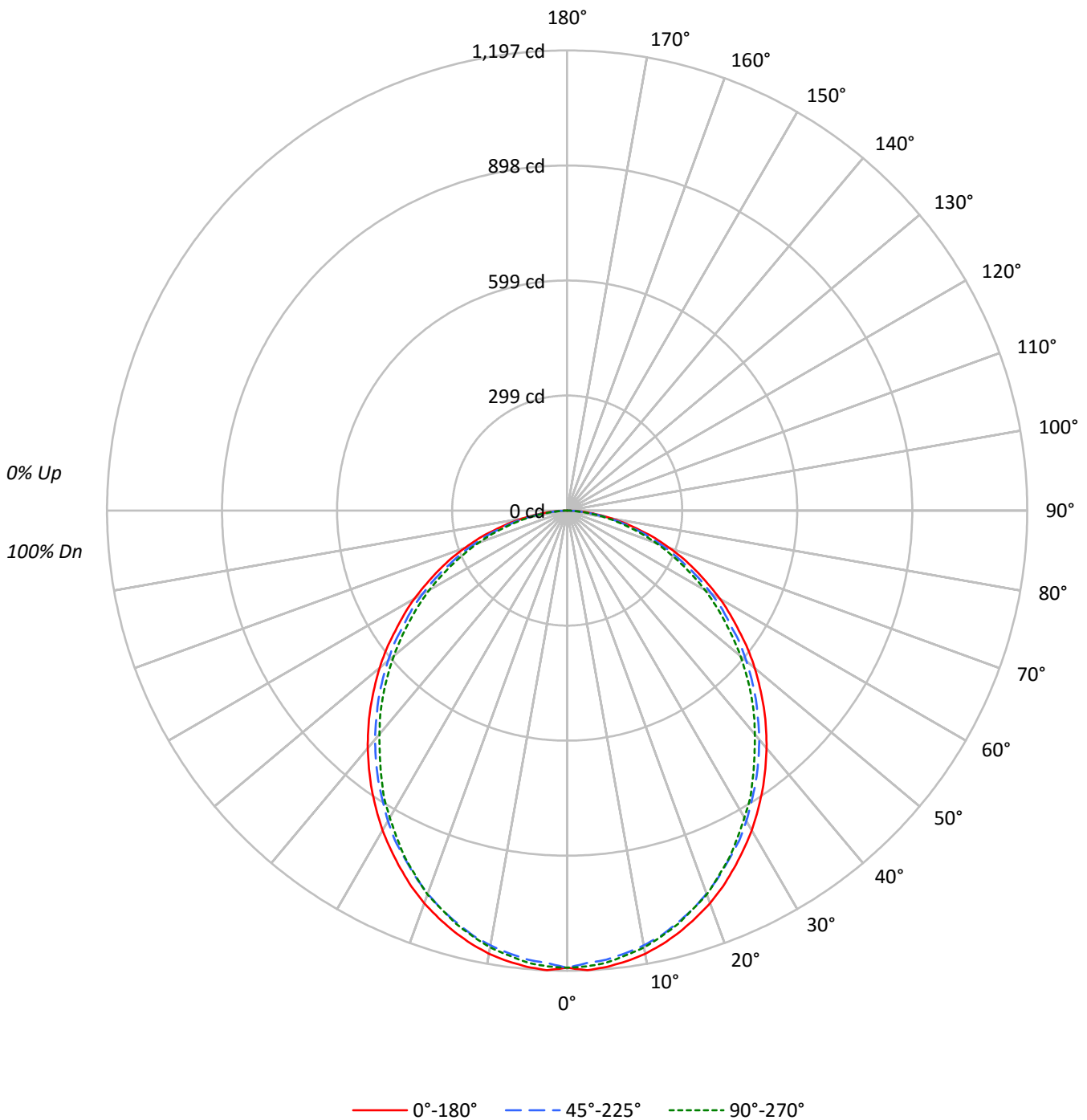
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	35233	35233	35233
5°	35433	34877	35106
10°	35217	34555	34720
15°	34791	34052	34153
20°	34274	33445	33515
25°	33562	32667	32595
30°	32869	31894	31555
35°	32051	30977	30503
40°	31214	30069	29388
45°	30321	29076	28343
50°	29354	28040	27127
55°	28190	26769	25808
60°	27200	25766	24593
65°	25864	24174	22940
70°	24352	22542	21303
75°	22369	20492	19107
80°	19861	17984	16671
85°	16420	13429	11933



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.0	3.7
10°-20°	315.3	10.4
20°-30°	463.7	15.4
30°-40°	538.5	17.8
40°-50°	537.2	17.8
50°-60°	467.5	15.5
60°-70°	344.3	11.4
70°-80°	191.8	6.4
80°-90°	49.5	1.6
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°	891.0	29.5
0°-40°	1429.5	47.3
0°-60°	2434.2	80.6
0°-90°	3019.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3019.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1189	1189	1189	1189	1189	
5°	1191	1186	1173	1182	1180	113
15°	1134	1125	1110	1118	1113	320
25°	1027	1016	999	1001	997	473
35°	886	875	856	848	843	554
45°	724	712	694	681	676	558
55°	546	539	518	508	500	490
65°	369	361	345	334	327	366
75°	195	190	179	171	167	208
85°	48	46	40	37	35	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1189.1	1189.1	1189.1	1189.1	1189.1
2.5°	1196.8	1190.2	1178.1	1188.0	1186.9
5°	1191.3	1185.8	1172.6	1182.5	1180.3
7.5°	1182.5	1175.9	1161.7	1170.5	1167.2
10°	1170.5	1163.9	1148.5	1155.1	1154.0
12.5°	1154.0	1146.3	1132.0	1137.5	1134.2
15°	1134.2	1125.4	1110.1	1117.8	1113.4
17.5°	1111.2	1101.3	1087.0	1091.4	1087.0
20°	1087.0	1076.0	1060.7	1065.0	1062.9
22.5°	1058.5	1048.6	1031.0	1033.2	1028.8
25°	1026.6	1015.6	999.2	1001.4	997.0
27.5°	993.7	983.8	968.4	965.1	959.6
30°	960.7	948.7	932.2	927.8	922.3
32.5°	923.4	912.4	893.8	889.4	886.1
35°	886.1	875.1	856.4	847.6	843.3
37.5°	846.5	835.6	816.9	807.0	800.4
40°	807.0	794.9	777.4	767.5	759.8
42.5°	765.3	754.3	734.6	724.7	719.2
45°	723.6	711.5	693.9	680.8	676.4
47.5°	679.7	668.7	651.1	636.8	632.4
50°	636.8	624.8	608.3	594.0	588.5
52.5°	592.9	581.9	566.6	552.3	543.5
55°	545.7	539.1	518.2	508.4	499.6
57.5°	502.9	495.2	478.7	462.3	456.8
60°	459.0	450.2	434.8	420.5	415.0
62.5°	412.8	406.3	390.9	377.7	370.0
65°	368.9	361.2	344.8	333.8	327.2
67.5°	328.3	318.4	301.9	291.0	285.5
70°	281.1	273.4	260.2	251.4	245.9
72.5°	240.5	231.7	219.6	210.8	205.3
75°	195.4	190.0	179.0	171.3	166.9
77.5°	155.9	148.2	140.5	135.1	131.8
80°	116.4	110.9	105.4	99.9	97.7
82.5°	81.3	76.9	71.4	68.1	64.8
85°	48.3	46.1	39.5	37.3	35.1
87.5°	23.1	19.8	13.2	12.1	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)